

## DESCRIPTIONS OF AUSTRALIAN MICRO-LEPIDOPTERA.

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## XVI. TINEIDAE.

The investigations which I made for the purpose of this paper have led me to extend the limits of the family *Tineidae* beyond those which I originally contemplated and have elsewhere used, thus including within it the smooth-faced genera previously separated as the *Argyresthiadae*, those with up-turned apex of forewings for which I formed the family *Erechthiadae*, and the rough-headed genera with antennal eyecaps formerly classed as *Lyonetiadae*; the latter term I would now restrict to the smooth-headed genera with antennal eyecaps. The reason for this course is that I find it impossible to maintain an accurate line of demarcation between these groups, the characters not being constantly preserved. They do however constitute natural groups, with structural distinctions which are usually though not invariably maintained, and may be conveniently regarded as subfamilies, if rigidity of definition is not insisted on.

As now defined, the family includes nearly all the rough-headed *Tineina*. The *Micropterygidae* and *Nepticulidae*, which are also rough-headed, differ from it, the former by the primitive neurulation of the hindwings, which have eleven or more veins, instead of the normal eight, and the latter (which is probably a direct development of the *Micropterygidae*, with very degraded neurulation,) by the eighteen-legged larva. The *Gracilariadae* are normally smooth-headed, but some genera have rough heads; these are distinguishable by the fourteen-legged larvæ, and can also be separated from those genera of *Tineidae* with degraded neurulation

(with which alone they can be confused) by a consideration of the total of other characters.

I consider the *Tineidae* to have been developed from an early form of the *Plutellidae*, closely approaching the primitive *Micropterygidae*. The *Lyoniatiadae* and *Gracilariadae* I regard as offshoots from some of the more degenerate forms of the *Tineidae*. The family, though less numerous than some others, is still a large one, and seems to be pretty evenly distributed throughout the world.

The following are the characters of the family :—

Head roughly haired, face sometimes smooth. Antennæ variable in length, usually  $\frac{3}{4}$ -1, joints often closely set, transverse. Labial palpi usually nearly straight, often with scattered bristles, apex rarely acute. Maxillary palpi often strongly developed, several-jointed, folded, sometimes absent. Forewings with vein 1 furcate or more rarely simple, 2 from or rather near angle, 11 usually from or before middle, upper margin of cell usually more or less obsolete towards base, secondary cell often well-marked, forked parting-vein usually well-defined. Hindwings usually as broad as forewings, sometimes narrower, very rarely broader, varying from subovate to linear; vein 8 free. Larva sixteen-legged or apodal.

The folded several-jointed maxillary palpi are confined to the rough-headed families of the *Tineina*; they are not however by any means constantly present, the tendency to their loss being so strong, that they are not unfrequently present in one of two closely allied genera and absent, or nearly so, in the other. Hence, while their presence is a highly valuable indication of affinity, their absence proves nothing. They are notwithstanding one of the primitive characters of the ancestors of the family. I am however unable at present to see how, on any scheme of descent, all those genera which possess long folded maxillary palpi can have retained them by direct inheritance from the primitive form; and it seems necessary to assume that in some instances they may have reverted from a state of partial (not entire) obsolescence to their originally fully-developed structure.



In some other respects there is great variation. Certain genera have the antennæ of extreme length, thrice as long as the forewings, a character which recurs in no other *Lepidoptera*. The labial palpi never assume the sickle-shaped form so characteristic of the large majority of the smooth-headed *Tineina*; occasionally they are quite absent. The presence or absence of the ocelli seems to be of little or no importance generically. The neurulation is sometimes much degraded, but when fully present the normal type has all the veins separate and tolerably parallel in both forewings and hindwings; many genera have a tendency to the approximation of veins 5 and 6 in the hindwings.

The family may be divided into the following groups, as characterised:

(1) *Adelides*. Antennæ of ♂ thrice forewings: genera 1, 2.

(2) *Tineides*. Face usually rough; maxillary palpi often developed; neurulation usually normal: genera 3-21.

(3) *Erechthiades*. Face usually rough; maxillary palpi well-developed; neurulation normal; apex of forewings bent up at right angles to surface in repose: genera 22-27.

(4) *Hieroxestides*. Face smooth; maxillary palpi well-developed; antennæ with eyecap: genus 28.

(5) *Argyresthiades*. Face smooth; maxillary palpi rarely developed; neurulation normal: genera 29-40.

(6) *Bedelliades*. Face smooth; maxillary palpi obsolete; antennæ often with eyecap; neurulation degraded: genera 41-47.

(7) *Opostegides*. Face rough; maxillary palpi well-developed; antennæ with large eyecap; neurulation much degraded: genus 48.

The first of these groups, the *Adelides*, is definable as a separate family, if it were thought necessary, but there seems no sufficient reason to separate it from the rest at present.

In the following descriptions I have given characters for all the genera, for the sake of completeness, and tables of species for all the genera; but I have not thought it necessary to redescribe those species which I have already described before, nor to repeat localities then given.

Subjoined is the tabulation of genera.

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| 1. Antennæ in ♂ more than twice forewings...                 | 2.                      |
| Antennæ in ♂ less than twice forewings...                    | 3.                      |
| 2. Eyes in ♂ much enlarged, closely approximated above.....  | 1. <i>Nemotois</i> .    |
| Eyes in ♂ normal.....  | 2. <i>Adela</i> .       |
| 3. Face more or less rough..                                 | 4.                      |
| Face smooth.....   | 27.                     |
| 4. Maxillary palpi more or less developed....                | 5.                      |
| Maxillary palpi rudimentary or absent....                    | 20.                     |
| 5. Maxillary palpi long, folded.....                         | 6.                      |
| Maxillary palpi moderate or short, not folded.....           | 18.                     |
| 6. Forewings with one or more veins absent                   | 7.                      |
| Forewings with all veins present.....                        | 13.                     |
| 7. Antennæ in ♂ with notch above basal joint                 | 24. <i>Comodica</i> .   |
| Antennæ in ♂ without notch.....                              | 8.                      |
| 8. Antennæ with large eyecap.....                            | 48. <i>Opostega</i> .   |
| Antennæ without eyecap.....                                  | 9.                      |
| 9. Abdomen much dilated; posterior tibiæ smooth above.....   | 26. <i>Eurytyla</i> .   |
| Abdomen normal; posterior tibiæ rough-haired above.....      | 10.                     |
| 10. Hindwings with cell open.....                            | 11.                     |
| Hindwings with cell closed.....                              | 12.                     |
| 11. Hindwings ovate-lanceolate, cilia $1\frac{1}{4}$ .....   | 23. <i>Chorocosma</i> . |
| Hindwings narrow-lanceolate or linear, cilia 3-6.....        | 19. <i>Demobrotis</i> . |
| 12. Forewings with veins 7 and 8 stalked or coincident ..... | 25. <i>Ereunetis</i> .  |
| Forewings with veins 7 and 8 separate....                    | 20. <i>Endopthora</i> . |
| 13. Forewings with vein 7 to hindmargin.....                 | 7. <i>Eriocottis</i> .  |
| Forewings with vein 7 to costa.....                          | 14.                     |

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| 14. Hindwings with vein 5 absent.....   | 22. <i>Dryadaula</i> .    |
| Hindwings with all veins present.....   | 15.                       |
| 15. Forewings with transparent discal impres-<br>sion, veins 3 and 4 stalked..... | 14. <i>Blabophanes</i> .  |
| Forewings without transparent impression,<br>veins 3 and 4 separate.....          | 16.                       |
| 16. Antennæ almost or quite 1.....  | 16. <i>Chrysoryctis</i> . |
| Antennæ not over $\frac{5}{6}$ ... ..   | 17.                       |
| 17. Hindwings with cell open.....   | 13. <i>Mimoscopa</i> .    |
| Hindwings with cell closed.....   | 15. <i>Tinea</i> .        |
| 18. Labial palpi with second joint tufted in<br>front.....                        | 12. <i>Scardia</i> .      |
| Labial palpi with second joint not tufted..                                       | 19.                       |
| 19. Antennæ in ♂ ciliated.....  | 8. <i>Mesopherna</i> .    |
| Antennæ in ♂ pubescent.....   | 17. <i>Tineola</i> .      |
| 20. Hindwings with one or more veins absent                                       | 21.                       |
| Hindwings with all veins present.....   | 24.                       |
| 21. Antennæ in ♂ bipectinated.....  | 22.                       |
| Antennæ in male not bipectinated.....   | 23.                       |
| 22. Hindwings with cell open between 6 and 7.                                     | 10. <i>Iphierga</i> .     |
| Hindwings with cell closed.... ..   | 4. <i>Ctenocompa</i> .    |
| 23. Forewings with vein 10 absent.....  | 21. <i>Mychonoa</i> .     |
| Forewings with vein 10 present.....   | 6. <i>Lepidoscia</i> .    |
| 24. Antennæ longer than forewings.....  | 18. <i>Macraeola</i> .    |
| Antennæ shorter than forewings.....   | 25.                       |
| 25. Middle and posterior tarsi conspicuously<br>elongate.....                     | 9. <i>Acridotarsa</i> .   |
| Middle and posterior tarsi normal.....  | 26.                       |
| 26. Posterior tibiæ smooth-scaled.....  | 11. <i>Ardiosteres</i> .  |
| Posterior tibiæ rough-haired.....   | 5. <i>Xysmatodoma</i>     |
| 27. Hindwings with all veins present.....   | 28.                       |
| Hindwings with one or more veins absent   | 36.                       |
| 28. Antennæ $1\frac{1}{2}$ .....  | 29.                       |
| Antennæ less than 1.....  | 30.                       |

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| 29. Maxillary palpi long, folded.....                          | 35. <i>Hestianula</i> .    |
| Maxillary palpi rudimentary.....                               | 40. <i>Amphithera</i> .    |
| 30. Maxillary palpi long, folded.....                          | 31.                        |
| Maxillary palpi short or absent.....                           | 32.                        |
| 31. Hindwings with vein 5 out of 7, 6 to hindmargin.....       | 28. <i>Hieroxestis</i> .   |
| Hindwings with vein 7 separate, 6 to costa                     | 27. <i>Hippiochaetes</i> . |
| 32. Forewings with vein 7 to costa. . . . .                    | 33.                        |
| Forewings with vein 7 to hindmargin.....                       | 35.                        |
| 33. Second joint of labial palpi with dense tuft of hairs..... | 31. <i>Dascia</i> .        |
| Second joint of labial palpi not tufted.....                   | 34.                        |
| 34. Terminal joint of palpi as long as second                  | 29. <i>Timaea</i> .        |
| Terminal joint of palpi much shorter than second.....          | 32. <i>Acmosara</i> .      |
| 35. Tongue well-developed.....                                 | 30. <i>Thudaca</i> .       |
| Tongue absent.....   | 3. <i>Sentica</i> .        |
| 36. Hindwings with cell closed.....                            | 37.                        |
| Hindwings with cell open.....                                  | 42.                        |
| 37. Maxillary palpi porrected, distinct.....                   | 36. <i>Touza</i> .         |
| Maxillary palpi rudimentary.....                               | 38.                        |
| 38. Posterior tibiæ smooth-scaled .....                        | 33. <i>Zelleria</i> .      |
| Posterior tibiæ with long hairs . . . . .                      | 39.                        |
| 39. Antennæ longer than forewings.....                         | 40.                        |
| Antennæ not longer than forewings.....                         | 41.                        |
| 40. Antennæ in ♂ ciliated.....                                 | 39. <i>Thereutis</i> .     |
| Antennæ in ♂ simple.....                                       | 38. <i>Harpedonistis</i>   |
| 41. Anterior tibiæ dilated with scales.....                    | 34. <i>Macarangelia</i> .  |
| Anterior tibiæ normal....                                      | 37. <i>Nematobola</i> .    |
| 42. Palpi wholly absent.....                                   | 45. <i>Bucculatrix</i> .   |
| Palpi not wholly absent.....                                   | 43.                        |
| 43. Basal joint of antennæ forming well-marked eyecap .....    | 44.                        |
| Basal joint of antennæ not forming an eyecap                   | 46.                        |

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| 44. Antennæ 1 or over 1.....                   | 46. <i>Stegommata</i> .   |
| Antennæ less than 1.....                       | 45.                       |
| 45. Forewings with 4 veins absent.....         | 41. <i>Cateristis</i> .   |
| Forewings with 5 veins absent.....             | 47. <i>Crobylophora</i> . |
| 46. Antennæ 1.....                             | 43. <i>Bedellia</i> .     |
| Antennæ less than 1.....                       | 47.                       |
| 47. Forewings with cell closed, 5 veins absent | 42. <i>Diplothectis</i> . |
| Forewings with cell open, 6 veins absent...    | 44. <i>Arctocoma</i> .    |

## 1. NEMOTOIS, Hb.

Head rough-haired on crown, face smooth; eyes in ♂ enlarged, approximated on crown; ocelli absent; tongue well-developed, base hairy. Antennæ in ♂ about 3, in ♀  $1\frac{1}{2}$  or more, in ♂ filiform, simple, basal joint thick, without pecten. Labial palpi moderate, curved, ascending, shorter in ♀, with long rough projecting hairs in front, terminal joint tolerably pointed. Maxillary palpi absent. Posterior tibiæ clothed with long hairs. Forewings with vein 1 furcate, 7 to costa, 11 from  $\frac{1}{3}$ . Hindwings 1, elongate-ovate, cilia  $\frac{2}{3}$ ; veins 6 and 7 stalked or approximated at base.

A rather small genus, characteristic of the European and Indo-Malayan regions; the three Australian species known to me are very closely allied together. The known larvæ (not Australian) are case-bearers, feeding at first on flowers, afterwards rather indiscriminately. The imagos fly in hot sunshine.

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| 1. Forewings with clear yellow oval spot in disc near base..... | 3. <i>topazias</i> .    |
| Forewings without yellow spot.....                              | 2.                      |
| 2. Hairs of crown in ♂ black.....                               | 1. <i>sparsellus</i> .  |
| Hairs of crown in ♂ yellow-ochreous mixed with blackish.....    | 2. <i>orichalcias</i> . |

1. *Nem. sparsellus*, Walk.

(*Nemotois sparsella*, Walk. 506.)

♂♀. 11 mm. Head in ♂ blackish, in ♀ yellow-ochreous, face brassy-metallic. Palpi whitish, with black hairs. Antennæ

whitish, towards base dark fuscous. Thorax pale metallic golden. Abdomen and legs dark fuscous, base of tarsal joints whitish. Forewings elongate-triangular, costa gently arched, apex obtuse, hindmargin obliquely rounded; bright metallic coppery-golden, with purple reflections; a slender dark purple subcostal streak from base to  $\frac{1}{3}$ , margined above by a pale metallic golden costal streak; a rather broad dark fuscous-purple median fascia, anterior edge rather irregular, posterior edge straight, crossed throughout by numerous whitish fine partially broken striæ, not quite reaching posterior edge: cilia coppery-golden. Hindwings dark purplish-fuscous; cilia bronzy-fuscous.

Sydney, New South Wales; three specimens in October, on flowers of *Leptospermum*. This may possibly be only a form of *N. orichalcias*; further material is needed to decide. It is distinguished by the wholly black crown of ♂, whitish antennæ, more golden (less purple) colouring, and whitish (not ochreous) striæ of median fascia.

## 2. *Nem. orichalcias*, n.sp.

(? *Adela laurella*, Newm., Trans. Ent. Soc. Lond. (n.s.) III, 290.)

♂♀. 10-13 mm. Head yellow-ochreous, crown in ♂ mixed with blackish, face brassy-metallic. Palpi whitish-ochreous, with some dark fuscous hairs. Antennæ dark fuscous. Thorax bright metallic coppery. Abdomen and legs dark fuscous, base of tarsal joints ochreous-whitish. Forewings elongate-triangular, costa gently arched, apex obtuse, hindmargin obliquely rounded; bright metallic coppery-golden, with strong bright purple reflections; a thick dark purple subcostal streak from base to  $\frac{1}{3}$ , margined above by a pale metallic golden costal streak, and beneath by a pale metallic golden oval patch; a rather broad dark fuscous-purple median fascia, anterior edge curved or somewhat sinuate, posterior edge straight, crossed throughout by numerous whitish-ochreous fine partially broken striæ, not quite reaching posterior edge: cilia metallic purplish-coppery. Hindwings dark fuscous, with

purplish or bronzy reflections, thinly scaled towards base; cilia bronzy-fuscout.

Sydney and Bowenfels (3000 feet), New South Wales; Melbourne, Victoria; Launceston and Hobart, Tasmania; Mount Lofty, South Australia; locally plentiful from December to March, frequenting flowers of *Bursaria spinosa*. *Adela laurella*, Newm., may probably be this species, but as the description is insufficient to separate it with certainty from its allies, and the type is not forthcoming, it seems better not to adopt the name on uncertain evidence. *Adela chrysolamprella*, Ros., Ann. Mag. Nat. Hist. 1885, 438, appears to me from the description to be probably a fourth species of the genus, unless described from a bad specimen; it cannot be certainly identified at present.

### 3. *Nem. topazias*, n.sp.

♂♀. 10-12 mm. Head in ♂ blackish, in ♀ yellow-ochreous, face brassy-metallic. Palpi pale yellow, in ♂ with some blackish hairs. Antennæ dark fuscous. Thorax bright metallic coppery. Abdomen and legs dark fuscous, base of tarsal joints ochreous-whitish. Forewings elongate-triangular, costa gently arched, apex obtuse, hindmargin obliquely rounded; bright deep coppery-purple, with golden-metallic reflections; a pale metallic-golden streak along basal third of costa; a pale clear ochreous-yellow oval or pear-shaped spot near base in middle; a rather broad dark fuscous-purple median fascia, anterior edge curved or somewhat sinuate, posterior edge straight, crossed throughout by numerous whitish-yellowish fine partially broken striæ, not quite reaching posterior edge: cilia deep coppery-purple. Hindwings dark purplish-fuscous, thinly scaled towards base; cilia purplish-fuscous.

Blackheath (3500 feet), New South Wales; Georges Bay, Tasmania; Wirrabara and Mount Lofty, South Australia; in October, December, and March, locally plentiful, frequenting flowers of *Acacia*. This species is very similar to the two preceding, but distinguished from both by the clear well-defined yellow (not metallic) subbasal spot, and by the deeper purple (less golden) colouring, especially noticeable in the cilia of fore-

wings; in the blackish crown of ♂ it agrees with *N. sparsellus*, in the yellowish tint of the striæ with *N. orichalcias*. The fact of the three species appearing to frequent different flowers may not indicate much, as it is possible that these are not the food-plants of the larvæ, but are merely frequented by the imagos for their nectar; they may therefore be simply selected as the most attractive blossoms in the localities respectively inhabited by the species.

## 2. ADELA, Latr.

Head rough-haired, face rather smooth beneath; ocelli absent; tongue developed. Antennæ in ♂ about 3, in ♀ about  $1\frac{1}{2}$ , filiform, often thickened with scales towards base. Labial palpi rather short, porrected, rough-haired. Maxillary palpi absent. Posterior tibiæ clothed with long hairs. Forewings with vein 1 furcate, 7 to costa, 8 and 9 rarely stalked, 11 from  $\frac{1}{3}$ . Hindwings 1, elongate-ovate, cilia  $\frac{2}{3}$ ; sometimes 5 and 6, or 6 and 7 stalked.

This genus, distinguished from the preceding by the eyes of the ♂ not being abnormally enlarged, is characteristic of the northern hemisphere, where it attains some development; whether the single species alleged to be Australian is really so, appears to me at present very doubtful. Besides the species in question, an insect has been figured by Felder (Reis. Nov. pl. cxxxix, 1) under the name of *Adela aethiops*, from Australia; it is represented as having blue-black forewings, with three straight parallel blue transverse lines beyond middle, and blackish hindwings; I believe this figure represents a Neuropterous insect which I have seen in Australia; and not a Lepidopteron at all.

## 4. *Ad. caeruleella*, Walk.

(*Adela caeruleella*, Walk. 502.)

♂. 13-14 mm. Head reddish-ochreous. Forewings elongate; deep purple, with indigo-blue reflections. Hindwings dark grey.

I have never seen this species in Australia, neither have any of my correspondents; possibly it is from the northern districts, but



at present I am disposed to think that there is some error of locality; two of the three types in the British Museum are said to be from an unknown source, the third from Australia, without more precise indication. The above diagnosis is drawn from these types.

*Nemophora sabulosella*, Walk. 497, is described as Australian: the small genus *Nemophora*, differing from *Adela* mainly in the possession of long folded maxillary palpi, is otherwise exclusively European, and its occurrence in Australia is very improbable, and has never been confirmed. The species in question (a greyish-ochreous insect with grey hindwings) closely approaches the European *N. panzerella*, if indeed not actually identical with it, and at present I refuse to include it in the Australian fauna without further evidence.

### 3. SENTICA, Walk.

Head with loose rather rough hairs, face with tolerably appressed scales; ocelli absent; tongue absent. Antennæ under  $\frac{1}{2}$ , joints elongate, in ♂ dentate, fasciculate-ciliated, basal joint thickened with small tooth of scales, without pecten. Labial palpi rather short, porrected, loosely haired, terminal joint short, somewhat pointed. Maxillary palpi absent. Posterior tibiæ with appressed scales. Ovipositor of ♀ very long. Forewings with vein 1 furcate, 7 to hindmargin, 8 absent, 9 and 10 sometimes stalked. Hindwings 1, trapezoidal-ovate, cilia  $\frac{1}{4}$ ; 6 and 7 somewhat approximated.

Only the two following species are known. The genus may probably be a development of *Xysmatodoma*.

Forewings with white spots..... 6. *oppositella* ♀.

Forewings with golden spots..... 6. *oppositella* ♂.

Forewings with orange fasciæ..... 5. *heliozona*.

### 5. *Sent. heliozona*, n.sp.

♀. 20 mm. Head, palpi, thorax, abdomen, and legs blackish; anal tuft whitish-ochreous beneath. Antennæ pale ochreous-yellowish. Forewings suboblong, costa sinuate, apex obtuse,

hindmargin obliquely rounded ; purple-blackish ; markings bright orange ; a moderate rather irregular fascia at  $\frac{1}{4}$  ; a spot on inner margin at  $\frac{2}{3}$  ; a moderate slightly sinuate fascia from middle of costa to anal angle ; a moderate outwards-curved fascia from  $\frac{3}{4}$  of costa to middle of hindmargin : cilia deep indigo-blue. Hindwings purple-blackish ; a moderate orange fascia near base ; a moderate orange fascia from beneath costa at  $\frac{1}{5}$  to hindmargin below middle, upper extremity attenuated ; cilia deep indigo-blue.

Queensland ; one specimen obtained from Mr. C. Diggles.

#### 6. *Sent. oppositella*, Walk.

(*Sentica oppositella*, Walk. 507 ; *Oecinea Felderi*, Scott, Austr. Lep. 29, pl. ix. ; ? *Lampronia discistrigella*, Walk. 487.)

♂. 14 mm. Forewings dark purplish-fuscous ; numerous small golden dots towards inner and hindmargin ; a golden spot on middle of costa, and another on costa before apex. Hindwings dark fuscous, with a golden discal patch extending to base.

♀. 15-19 mm. Head, palpi, antennæ, thorax, abdomen, and legs black ; antennæ ringed with whitish ; base of first tarsal joint white ; anal tuft ochreous-yellowish. Forewings oblong-triangular, costa moderately arched, apex obtuse, hindmargin rounded, little oblique ; black, with slight blue-green reflections ; markings snow-white ; a narrow fascia near base, not reaching inner margin ; a second at  $\frac{1}{3}$ , somewhat angulated in middle, interrupted below middle ; several variable dots below middle of disc ; three spots forming a curved series from  $\frac{2}{3}$  of costa to  $\frac{3}{4}$  of inner margin ; four others forming a curved submarginal series from  $\frac{5}{6}$  of costa to anal angle : cilia indigo-blue, with white dots at apex and anal angle and sometimes above and below middle. Hindwings very dark purplish-bronze, towards anal angle blue-greenish-tinged ; three or four variable snow-white dots towards anal angle ; cilia indigo-blue.

Sydney, New South Wales ; from November to January, common. Larva 16-legged, blackish ; head and segments 2-4 yellowish-brown : feeds on lichens, grass, &c., in a portable case ;

case large, triangular, swollen about middle, granulated with fragments of lichen, mouth very oblique, apex rather flattened, with two loose flaps on sides a little below apex. The description of the ♂ given above is taken from Scott (loc. cit.); I have bred the ♀ freely, but only bred one ♂, and that escaped, owing to my being unprepared for its great activity and rapidity of flight; I have never met with the species on the wing.

If Walker's description of *discistrigella* is really taken from the ♂ of this species, as seems not unlikely, the specific name would have to be adopted for the species; but I found no type standing under the name in the Museum collection, and think it better to wait until it is discovered, as the description does not fully accord.

#### 4. CTENOCOMPA, n.g.

Head rough-haired; ocelli absent; tongue absent. Antennæ  $\frac{1}{2}$ , in ♂ bipectinated, basal joint moderate, without pecten. Labial palpi short, thick, obtuse, porrected, with some loose rough hairs. Maxillary palpi absent. Posterior tibiæ with appressed scales. Forewings with vein 1 furcate, 7 to apex, 8 absent, 11 from before middle. Hindwings 1, triangular-ovate, cilia  $\frac{1}{6}$ ; vein 4 absent, 6 and 7 somewhat approximated.

Presumably also a development of *Xysmatodoma*, and allied to the preceding genus. It is nearly related structurally to the genus *Melusina*, which inhabits the European Alps, but differs in the absence of a vein in both forewings and hindwings. Only the one species is known.

#### 7. *Cten. baliodes*, n.sp.

♂. 18 mm. Head, palpi, thorax, abdomen, and legs blackish, clothed with grey hairs. Antennæ blackish, pectinations 3, reduced to dentations towards apex. Forewings suboblong, costa gently arched, apex rounded, hindmargin obliquely rounded; dark fuscous, strewn with numerous small paler or whitish-tinged spots throughout; several irregular white spots towards base; a larger transverse white spot from costa before middle, reaching half across wing; beneath this a triangular white spot, below

which are two white dots on middle of inner margin ; four small white spots on apical half of costa ; one or two whitish spots towards anal angle : cilia snow-white, base blackish-fuscous. Hindwings dark fuscous ; cilia as in forewings.

Duaringa, Queensland ; one specimen received from Mr. G. Barnard.

#### 5. *XYSMATODOMA*, Z.

Head shortly rough-haired ; ocelli present ; tongue absent. Antennæ from under  $\frac{1}{2}$  to  $\frac{3}{5}$ , in ♂ flatly subdentate or almost filiform, ciliated (1-2), basal joint with pecten. Labial palpi moderate or short, subascending or porrected, second joint with loose or rough projecting scales beneath or rarely tufted in front, terminal joint shorter than second, tolerably pointed. Maxillary palpi rudimentary or absent. Posterior tibiæ clothed with long hairs. Forewings with vein 1 furcate, rarely 2 and 3 stalked, 7 and 8 stalked or coincident, 7 when present running to apex or hindmargin, 8 and 9 sometimes stalked, 11 from before middle. Hindwings 1, elongate-ovate, cilia  $\frac{1}{6}$ - $\frac{1}{2}$  ; veins 4 and 5 sometimes stalked, 6 and 7 somewhat approximated at base.

Hitherto only known as containing two European species, this genus reaches a considerable degree of development in Australia, and may be regarded as the type of one main group of the family. The European genus *Talaeporia* only differs from it in the apterous ♀, and as that sex is unknown in some of the following species, it is conceivable that representatives of *Talaeporia* may hereafter be found among them. In *Xysmatodoma* the ♀ is usually somewhat smaller than the ♂, but always fully winged. The larvæ are all case-bearers, and feed either on lichens or indiscriminately on various plants.

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|---|-----------------------|
| 1. Palpi with second joint tufted in front..... | 11. <i>maurella</i> . |
| Palpi with second joint not tufted.....         | 2.                    |
| 2. Head ochreous-yellow.....                    | 3.                    |
| Head not yellow.....                            | 7.                    |
| 3. Forewings with yellow markings.....          | 4.                    |
| Forewings with white markings.....              | 5.                    |

BY E. MEYRICK.

4. Hindwings yellow.....	28. <i>carlotta</i> .
Hindwings dark fuscous.....	29. <i>chrysopetala</i> .
5. Forewings with white marginal spots.....	36. <i>chrysura</i> .
Forewings with transverse fasciæ.....	6.
6. Forewings with fasciæ only.....	35. <i>melanarthra</i> .
Forewings with spots and fasciæ.....	8. <i>glabrella</i> .
7. Hindwings white.....	26. <i>apochroa</i> .
Hindwings not white.....	8.
8. Abdomen yellowish.....	34. <i>trifasciana</i> .
Abdomen not yellowish.....	9.
9. Forewings with ground colour white, without strigulæ.....	10.
Forewings with ground colour not white, or if white, with darker strigulæ.....	13.
10. Forewings with posterior fascia furcate at anal angle.....	31. <i>basiferana</i> .
Forewings with posterior fascia not furcate beneath.....	11.
11. Forewings with posterior fascia confluent with submarginal streak beneath.....	33. <i>characota</i> .
Forewings with posterior fascia not confluent with submarginal streak.....	12.
12. Forewings with markings slender, sharply defined.....	32. <i>cataphracta</i> .
Forewings with markings moderately broad, irregular.....	30. <i>hamalitha</i> .
13. Forewings pale brownish-ochreous.....	27. <i>pelochroa</i> .
Forewings not brownish-ochreous.....	14.
14. Hindwings distinctly strigulated with darker.....	16. <i>saxosa</i> .
Hindwings not strigulated.....	15.
15. Hindwings dark fuscous.....	16.
Hindwings not dark fuscous.....	22.
16. Forewings with clear white spots.....	17.
Forewings without white spots.....	18.

17. Forewings with eleven spots..... 9. *Franenfeldi*.  
     Forewings with spots numerous, indefinite 10. *stellaris*.
18. Forewings with dark fasciæ more or less  
     defined ... ..... 19.  
     Forewings without indication of fasciæ... 21.
19. Forewings with vein 7 absent, 8 and 9  
     stalked or from point..... 23. *phaulodes*.  
     Forewings with veins 7 and 8 stalked, 9  
     separate ..... 20.
20. Size above 21 mm..... 17. *adelopis*.  
     Size below 16 mm..... 22. *reticulata*.
21. Size large..... 18. *Guildingi*.  
     Size very small..... 24. *pygmaea*.
22. Head light brownish-ochreous..... 19. *charitodes*.  
     Head not ochreous..... 23.
23. Forewings with vein 7 absent. .... 24.  
     Forewings with vein 7 present .....
24. Forewings without darker markings..... 25. *nephelodes*.  
     Forewings with darker markings..... 25.
25. Head grey ..... 20. *crepuscularis*.  
     Head white..... 26.
26. Forewings with dark linear mark from  
     costa at  $\frac{3}{4}$ ..... 12. *zonarcha*.  
     Forewings without dark linear mark from  
     costa at  $\frac{3}{4}$ ..... 15. *protorna*.
27. Forewings with distinct whitish antemedian  
     fascia ..... 21. *heliochaeres*.  
     Forewings without whitish fascia..... 28.
28. Forewings much dilated ; size 28 mm..... 13. *euryptera*.  
     Forewings not dilated ; size 17 mm..... 14. *lasiocola*.

8. *Xysm. glabrella*, Walk.( *Sentica glabrella*, Walk. 508.)

♂. 17 mm. Head light yellowish. Thorax blackish. Forewings elongate, blackish ; markings white ; a rather narrow fascia

at  $\frac{1}{3}$ ; a spot on costa beyond middle, and a smaller one at  $\frac{2}{3}$ ; a small spot on inner margin at  $\frac{3}{4}$ ; a narrow fascia from  $\frac{1}{5}$  of costa to anal angle; a small mark at apex, and one or two dots on hindmargin below it. Hindwings dark fuscous.

Sydney, New South Wales; I have described the type in the British Museum, which is the only specimen I have seen; I have not been able to examine it accurately for structure, but have little doubt of its position, though it might be a *Lepidoscia*.

9. *Xysm. Frauenfeldi*, Scott.

(*Oecobia Frauenfeldi*, Scott, Austr. Lep. 27, pl. ix.)

♀. 18 mm. Forewings elongate, purplish-black; about eleven white spots irregularly scattered throughout. Hindwings dark fuscous.

Sydney, New South Wales. Larva blackish, head and segments 2-4 testaceous spotted with brown; feeds on *Eucalyptus*; case cylindrical, formed of silk covered with small twigs placed longitudinally. I have not seen this species; a single specimen was bred by Scott, and the above account is taken from him.

10. *Xysm. stellaris*, n.sp.

♀. 20 mm. Head, palpi, antennæ, thorax, abdomen, and legs dark fuscous. Forewings elongate, costa gently arched, apex rounded, hindmargin obliquely rounded; 7 absent; dark fuscous; numerous small scattered well-defined white spots, on anterior half partially coalescing to form transverse marks or incomplete slender fasciæ; a more conspicuous transverse white spot on middle of inner margin: cilia fuscous, basal half dark fuscous. Hindwings dark fuscous; cilia as in forewings.

Melbourne, Victoria; one specimen received from Mr. G. H. Raynor. The number of spots is much greater than in the preceding species, especially in the posterior half of wing.

11. *Xysm. maurella*, Walk.

(*Tinea maurella*, Walk. 483).

♀. 24-26 mm. Head, palpi, antennæ, thorax, abdomen, and legs dark fuscous; palpi with scales of second joint forming a

dense projecting tuft in front; antennæ under  $\frac{1}{2}$ ; legs obscurely ringed with whitish. Forewings elongate, costa moderately arched, apex obtuse, hindmargin obliquely rounded; 7 absent; dark fuscous, mixed with blackish scales, tending to form transverse strigulæ: cilia dark fuscous, mixed with blackish, terminal half spotted with whitish-ochreous (imperfect). Hindwings and cilia dark grey.

Newcastle and Mittagong, New South Wales; in March, two specimens. This species can be distinguished from all the rest of the genus by the tufted palpi; it is otherwise very obscure in appearance, but possibly the ♂ may present additional characters, involving its separation from the genus.

12. *Xysm. zonarcha*, n.sp.

♂. 15-17 mm. Head white, face and palpi fuscous or dark fuscous. Antennæ dark fuscous. Thorax dark grey, mixed with white posteriorly. Abdomen grey-whitish, anal tuft white. Legs dark fuscous, posterior pair whitish. Forewings elongate, costa moderately arched, apex rounded, hindmargin very obliquely rounded; 7 absent; white, transversely strigulated with dark fuscous; an irregular rather outwardly oblique dark fuscous fascia from  $\frac{2}{5}$  of costa, reaching more than half across wing; a rather inwardly oblique dark fuscous linear mark from  $\frac{3}{4}$  of costa, reaching half across wing: cilia white. Hindwings grey; cilia whitish-grey, base darker.

Duaringa, Queensland; three specimens received from Mr. G. Barnard, taken in January. The species is very distinct by the two conspicuous marks from costa, sharply defined strigulation, and very rounded forewings.

13. *Xysm. euryptera*, n.sp.

♂. 28 mm. Head and palpi grey-whitish. Antennæ grey. Thorax and abdomen grey. Legs dark fuscous, apex of joints and posterior pair grey-whitish. Forewings elongate, much dilated posteriorly, costa moderately arched, apex very obtuse,



hindmargin rounded, little oblique; 7 and 8 stalked; pale fuscous-grey, densely strewn with whitish scales, and transversely strigulated with dark fuscous; a distinct transverse linear dark fuscous mark in disc above middle at  $\frac{2}{3}$ ; cilia fuscous-whitish, base more fuscous-tinged. Hindwings whitish-fuscous; cilia as in forewings.

Duaringa, Queensland; one specimen received from Mr. G. Barnard. Although obscurely marked, it is readily known by the peculiarly dilated and obtuse form of the forewings, and large size.

14. *Xysm. lasiocola*, n.sp.

♂. 17 mm. Head, palpi, thorax, and abdomen rather light brown-grey. Antennæ grey. Legs dark grey, apex of joints tinged with whitish-ochreous. Forewings elongate, costa moderately arched, apex obtuse, hindmargin obliquely rounded; 7 and 8 stalked; grey-whitish, closely strigulated transversely and reticulated with fuscous, forming two or three larger and darker fuscous spots on posterior half of costa: cilia fuscous-whitish, basal third with alternate fuscous and whitish quadrate spots. Hindwings grey, thinly scaled; cilia grey, more whitish towards tips.

Mount Kosciusko, New South Wales; one specimen taken on the very summit of the mountain (7200 feet), in January. An inconspicuous insect, distinguished rather by the absence of the special characteristics of its allies, but the well-marked spots at the base of cilia of forewings are a good point.

15. *Xysm. protorna*, n.sp.

♂. 19-22 mm. Head white, face and centre of crown sometimes fuscous-tinged. Palpi fuscous, beneath whitish. Antennæ grey-whitish. Thorax fuscous, posteriorly whitish, generally with a whitish anterior dorsal spot. Abdomen whitish-grey. Legs dark fuscous, apex of joints and posterior pair grey-whitish. Forewings elongate, costa rather strongly arched, apex obtuse, hindmargin very obliquely rounded; 7 absent; whitish-grey or white, with scattered more or less indistinct fuscous or dark fuscous strigulae; a rather narrow irregular sometimes ill-defined dark fuscous fascia

from  $\frac{1}{3}$  of costa to middle of inner margin, more or less interrupted on lower half: cilia grey-whitish. Hindwings light grey; cilia whitish, base grey.

Sydney, New South Wales; at the end of February and beginning of March, eight specimens, mostly taken at lamps. Especially distinguished by the peculiar form of forewings, white head, and form of antemedian fascia.

16. *Nysm. saxosa*, n.sp.

♂♀. 27-35 mm. Head, palpi, and thorax fuscous, mixed with grey-whitish. Antennæ whitish. Abdomen grey. Legs dark fuscous, posterior tarsi fuscous-whitish. Forewings elongate, costa in ♂ moderately arched, in ♀ more strongly and fringed with cilia, especially on anterior half, apex obtuse, hindmargin obliquely rounded; 7 and 8 long-stalked; pale fuscous, suffused with whitish, transversely strigulated and reticulated with dark fuscous; markings formed by an irregular fuscous or dark fuscous suffusion, incompletely defined; a fascia near base, externally angulated in middle; a small quadrate spot on inner margin at  $\frac{2}{5}$ ; a fascia from  $\frac{2}{5}$  of costa to beyond middle of inner margin, angulated on submedian fold; three quadrate spots on costa towards  $\frac{3}{4}$ , connected by a broad very irregular fascia narrowed downwards with anal angle: cilia grey-whitish, base spotted with dark fuscous. Hindwings grey-whitish, distinctly strigulated throughout with grey; cilia whitish.

Sydney, New South Wales; in July, six specimens. A winter insect, characterised by large size and more complex marking, and differing from all the rest of the genus by the well-marked strigulation of the hindwings, and fringed costa of forewings of ♀.

17. *Nysm. adelopis*, n.sp.

♂♀. 22-25 mm. Head fuscous, sometimes mixed with whitish on crown. Palpi whitish, above dark fuscous. Antennæ whitish. Thorax fuscous mixed with whitish. Abdomen dark fuscous, sometimes mixed with whitish, anal tuft of ♀ whitish-ochreous. Legs dark fuscous, posterior pair grey-whitish. Forewings elongate,

rather narrow, costa moderately arched, apex obtuse, hindmargin very obliquely rounded; 7 and 8 stalked; fuscous, more or less suffusedly irrorated with whitish, and transversely strigulated with dark fuscous; sometimes a small dark fuscous spot on inner margin before middle; a moderate dark fuscous fascia from  $\frac{2}{5}$  of costa to beyond middle of inner margin, sometimes perceptible towards costa only; a dark fuscous spot on costa at  $\frac{2}{3}$ , and another at anal angle, sometimes little indicated: cilia fuscous, somewhat mixed with whitish. Hindwings rather dark fuscous; cilia fuscous, base darker.

Sydney, New South Wales; from February to June, five specimens. A larval case, attributed to this species, is nearly cylindrical, rather curved, granulated with grains of coarse sand. Recognisable by the rather narrow forewings, and general dark grey colouring, especially of the hindwings.

18. *Xysm. Guildingi*, Scott.

(*Conoeca Guildingi*, Scott, Austr. Lep. 27, pl. ix; *C. irrorea*, Feld., Reis. Nov. pl. cxxxviii, 39, 40.)

♂♀. 22-30 mm. Forewings elongate; grey, evenly strigulated with darker. Hindwings rather dark fuscous.

Sydney and Newcastle, New South Wales. Larva blackish, head and segments 2-4 testaceous; case elongate-conical, granulated with fragments of bark, &c.; feeds on *Kunzea*, *Leptospermum*, *Juncus*, &c. Although this species is represented as common, I have no specimens which I can refer to it; the above description and account is taken from the authors quoted.

19. *Xysm. charitodes*, n.sp.

♂. 19 mm. Head light brownish-ochreous, face and palpi fuscous. Antennæ and thorax fuscous. Abdomen grey, anal tuft pale ochreous. Legs dark fuscous, posterior pair whitish. Forewings elongate, costa moderately arched, sinuate in middle, apex obtuse, hindmargin slightly rounded, oblique; 7 absent; light fuscous, with a few whitish scales, and obscurely strigulated

with darker fuscous, more distinctly on costa; a dark fuscous quadrate spot on inner margin at  $\frac{2}{5}$ ; a dark fuscous irregular fascia from beneath costa before middle to inner margin beyond middle, preceded and followed on inner margin by quadrate spots of whitish suffusion; an indistinct dark fuscous streak from beneath costa near apex to anal angle: cilia grey-whitish. Hindwings light grey; cilia grey-whitish.

Sydney, New South Wales; one specimen in June. Although an obscure species, it seems to be sufficiently distinguished by the ochreous tinge of the head, form of forewings, and light grey hindwings.

20. *Xysm. crepuscularis*, n.sp.

♂. 18 mm. Head, palpi, thorax and abdomen grey, mixed with whitish; abdomen somewhat ochreous-tinged posteriorly. Antennæ fuscous. Legs dark fuscous, posterior pair grey-whitish. Forewings elongate, costa moderately arched, apex obtuse, hindmargin slightly rounded, rather strongly oblique; 7 absent; grey, with a few whitish scales, and some scattered dark fuscous scales tending to form short strigulæ, especially on costa and inner margin; two obscure parallel series of about four dark fuscous dots from about  $\frac{2}{5}$  of costa to  $\frac{2}{5}$  of inner margin, enclosed space slightly whitish; a well-marked dark fuscous dot in disc at  $\frac{2}{3}$ : cilia whitish-grey. Hindwings grey; cilia whitish-grey.

Albany, West Australia; one specimen in September. Also an inconspicuous species, specially characterised by the peculiar markings of forewings.

21. *Xysm. heliochaes*, n.sp.

♂♀. 17-20 mm. Head and palpi whitish mixed with dark fuscous. Antennæ dark fuscous. Thorax and abdomen grey mixed with whitish. Legs dark fuscous, apex of joints and posterior pair grey-whitish. Forewings elongate, costa moderately arched, apex obtuse, hindmargin gently rounded, rather strongly oblique; 7 and 8 long-stalked; in ♂ pale fuscous, irrorated with whitish, with indistinct scattered fuscous strigulæ, in ♀ whitish strigulated with blackish-fuscous; a straight dark fuscous line

from  $\frac{1}{4}$  of costa to middle of inner margin, limiting a fuscous fascia or suffusion extending more or less completely to base, and followed by a rather broad distinctly white or whitish fascia; in ♀ a small quadrate dark fuscous spot on costa in middle; a dark fuscous irregular fascia from  $\frac{2}{3}$  of costa to  $\frac{3}{4}$  of inner margin, and another from  $\frac{4}{5}$  of costa to anal angle, confluent on a blackish-fuscous dot in middle, both nearly obsolete in ♂ except on margins, but discal dot conspicuous; costa spotted with dark fuscous towards apex: cilia grey-whitish, in ♀ mixed with dark fuscous. Hindwings grey; cilia in ♂ grey-whitish, in ♀ grey.

Sydney, New South Wales; Melbourne, Victoria; in July and August, rather common. The species may be recognised by the more or less distinct straight oblique whitish band of the forewings; the ♀ is smaller and more strongly marked than the ♂. The imago flies freely in the sunshine.

22. *Xysm. reticulata*, n.sp.

♂♀. 12-15 mm. Head fuscous, somewhat mixed with whitish. Palpi dark fuscous, beneath whitish. Antennæ, thorax, and abdomen fuscous. Legs dark fuscous, posterior pair grey-whitish. Forewings elongate, costa gently arched, apex roundpointed, hindmargin very obliquely rounded; 7 and 8 long-stalked; dark fuscous, irrorated with numerous small cloudy white spots, sharper and tending to be partially confluent in ♀; the partial absence of these produces in ♂ darker markings, an oblique basal patch, an oblique median fascia, and two posterior fasciæ confluent on lower half and terminating in anal angle, all ill-defined and in ♀ scarcely traceable: cilia fuscous, mixed with whitish towards tips. Hindwings dark fuscous; cilia as in forewings.

Melbourne and Fernshaw, Victoria; in September and November, two specimens. This inconspicuous insect is smaller than any of the preceding, but not so small as the next two species; the markings are very obscure.

23. *Xysm. phaulodes*, n.sp.

♂♀. 10-12 mm. Head, palpi, antennæ, thorax, abdomen, and legs dark fuscous; posterior legs whitish. Forewings elongate,

costa gently arched, apex roundpointed, hindmargin very obliquely rounded; 7 absent, 8 and 9 from a point or short-stalked; in ♂ dark fuscous, irregularly and obscurely irrorated with white, which forms a suffusion in disc towards base, a cloudy straight median fascia, and some scattered posterior dots; in ♀ white, strigulated throughout with dark fuscous, with irregular dark fuscous fasciæ before and beyond middle, the latter furcate towards costa: cilia rather dark fuscous, with a few white scales. Hindwings and cilia dark fuscous.

Hobart, Tasmania; in March, five specimens bred from cases found on a fence; the description of the case was unfortunately lost. Very similar to the preceding and following, but the neuration is peculiar and seems the best distinction; the markings, though not identical, are so ill-defined that they are hard to trace.

24. *Xysm. pygmaea*, n.sp.

♂. 8 mm. Head, palpi, antennæ, thorax, and abdomen fuscous; legs dark fuscous, apex of joints and posterior pair fuscous-whitish. Forewings elongate, costa moderately arched, apex roundpointed, hindmargin very obliquely rounded; 7 absent; dark fuscous, with numerous scattered small obscure spots of whitish-ochreous or whitish-fuscous scales: cilia fuscous, with some fuscous-whitish scales. Hindwings rather dark fuscous; cilia fuscous.

Mount Victoria (3000 feet), New South Wales; four specimens in November, in a forest gully. The small size and absence of definite markings will distinguish it from all the rest.

25. *Xysm. nephelodes*, n.sp.

♂. 15-18 mm. Head and antennæ whitish or fuscous-whitish. Palpi dark fuscous, beneath whitish. Thorax pale grey. Abdomen whitish-grey. Legs dark grey, posterior pair whitish. Forewings elongate, costa moderately arched, apex roundpointed, hindmargin very obliquely rounded; 7 absent; grey, densely and suffusedly irrorated throughout with white: cilia grey-whitish. Hindwings whitish-grey; cilia grey-whitish.

Sydney, Blackheath (3500 feet), and Shoalhaven, New South Wales; from October to January, five specimens amongst rocks. Easily known by the uniform whitish-grey colouring.

26. *Xysm. apcchroa*, n.sp.

♂. 13-14 mm. Head, palpi, antennæ, thorax, and abdomen white. Legs dark fuscous, posterior pair white. Forewings elongate, rather narrow, costa gently arched, apex roundpointed, hindmargin very obliquely rounded; 7 and 8 stalked; white: cilia white. Hindwings and cilia white.

Mount Lofty (2000 feet), South Australia; two specimens in October. This must not be confused with the equally white *Lepidoscia palleuca*.

27. *Xysm. pelochroa*, n.sp.

♂. 12-13 mm. Head and palpi ochreous-whitish. Antennæ light fuscous. Thorax pale brownish-ochreous. Abdomen dark fuscous. Legs dark fuscous, posterior pair ochreous-whitish. Forewings elongate, costa moderately arched, apex obtuse, hindmargin rounded, rather strongly oblique; 7 and 8 stalked; pale brownish-ochreous, with scattered fuscous scales, tending to form indistinct strigulæ; sometimes two or three small fuscous spots on inner margin: cilia whitish-ochreous. Hindwings dark fuscous; cilia fuscous, mixed with whitish-ochreous towards tips.

Brisbane, Queensland; three specimens amongst dense scrub in September. Differs from all in the uniform brownish-ochreous forewings.

28. *Xysm. carlotta*, n.sp.

♂. 12-14 mm. Head ochreous-yellow. Palpi, antennæ, and thorax dark fuscous. Abdomen dark fuscous, beneath ochreous-yellow. Legs dark fuscous, apex of joints and posterior pair ochreous-yellowish. Forewings elongate, costa gently arched, apex roundpointed, hindmargin rounded, rather strongly oblique; 7 absent; clear ochreous-yellow; markings dark fuscous; a streak along basal  $\frac{1}{4}$  of costa, extended at base to inner margin; a moderate straight fascia from before middle of costa to beyond

middle of inner margin; a straight narrower fascia from  $\frac{2}{3}$  of costa to anal angle; a variable fascia from costa before apex to second fascia below middle, sometimes connected with it also by a bar above middle, sometimes extending suffusedly to apex and hindmargin so as to become marginal: cilia dark fuscous, sometimes mixed with whitish-yellowish towards tips. Hindwings pale ochreous-yellow; a variable marginal band of dark fuscous irroration from apex to below middle of hindmargin, narrowed downwards; cilia as in forewings.

Sydney (Parramatta), New South Wales; in May, six specimens flying in the early morning sunshine at 6 a.m. I took them on different mornings, but never saw them at any other time of day; it is an elegant and very distinct species.

29. *Xysm. chrysopetala*, n.sp.

♂. 12mm. Head ochreous-yellow. Palpi, antennæ, and thorax dark fuscous. Abdomen dark fuscous, beneath pale yellowish. Legs dark fuscous, apex of joints and posterior pair ochreous-whitish. Forewings elongate, costa moderately arched, apex roundpointed, hindmargin rounded, rather strongly oblique; 7 absent; clear ochreous-yellow; a dark purplish-fuscous streak along basal third of costa, extended at base to inner margin; apical half beyond a straight line from middle of costa to beyond middle of inner margin wholly dark purplish-fuscous, except a yellow spot on costa at  $\frac{3}{4}$ , and another on inner margin at  $\frac{3}{4}$ : cilia dark purplish-fuscous. Hindwings and cilia dark purplish-fuscous.

Sydney, New South Wales; two specimens on fences in September. Also very distinct.

30. *Xysm. hamalitha*, n.sp.

♀. 16mm. Head and antennæ white. Palpi white, terminal joint dark fuscous. Thorax fuscous. Abdomen grey-whitish. Legs dark fuscous, apex of joints and posterior pair whitish. Forewings elongate, costa moderately arched, apex obtuse, hindmargin obliquely rounded; 7 absent; white, with a few scattered



fuscous or dark fuscous scales ; markings fuscous mixed with dark fuscous ; a small spot on base of costa ; a small ill-defined spot in disc near base ; a moderate fascia from  $\frac{2}{5}$  of costa to middle of inner margin, slightly angulated in middle ; a rather irregular fascia from  $\frac{2}{3}$  of costa to anal angle ; a wedge-shaped spot on costa before apex ; an elongate spot on hindmargin below apex : cilia white, opposite wing-markings fuscous. Hindwings grey ; cilia whitish-grey, basal third rather dark fuscous.

Toowoomba (3000 feet), Queensland ; Mount Lofty (2000 feet), South Australia ; two specimens amongst rocks.

31. *Xysm. basiferana*, Walk.

(*Sciaphila basiferana*, Walk. 350.)

♂♀. 12-15 mm. Head white. Palpi and antennæ dark fuscous. Thorax dark fuscous, posterior extremity white. Abdomen grey, anal tuft ochreous-whitish. Legs dark fuscous, apex of joints and posterior pair whitish. Forewings elongate, costa rather strongly arched, apex roundpointed, hindmargin rounded, rather strongly oblique ; 7 absent ; white ; markings blackish-fuscous ; a narrow basal mark, somewhat produced along costa ; a rather narrow fascia from  $\frac{2}{5}$  of costa to middle of inner margin ; a fascia from about  $\frac{3}{4}$  of costa to anal angle, furcate at both extremities, upper anterior fork sometimes obsolete ; a series of small spots along hindmargin and apical part of costa : cilia white, base marked with dark fuscous opposite wing-markings. Hindwings pale grey ; cilia ochreous-whitish.

Sydney, New South Wales ; bred rather freely in September and October. Larva 16-legged, stout, legs long, head small ; whitish-grey ; head and 2nd segment black, 3rd segment with a narrow dark grey transverse plate : feeds in a portable case on lichens on damp rocks and fences, in August and September : case cylindrico-conical, broadest at  $\frac{1}{3}$  above mouth, finely granulated, whitish-green-grey ; mouth very oblique, apex rather bluntly flattened.

32. *Xysm. cataphracta*, n.sp.

♂♀. 15-17 mm. Head white. Palpi, antennæ, and thorax dark fuscous. Abdomen pale grey. Legs dark fuscous, apex of joints and posterior pair whitish. Forewings elongate, costa moderately arched, apex roundpointed, hindmargin obliquely rounded; 7 absent; white; markings dark fuscous; a narrow basal mark, somewhat produced along costa; three slender somewhat irregular fasciæ; first at  $\frac{1}{4}$ , not reaching costa; second from before middle of costa to middle of inner margin; third from  $\frac{2}{3}$  of costa to anal angle; a dot on inner margin before third fascia; a short transverse mark from costa before apex; a slender streak along hindmargin from apex to near anal angle: cilia white, base dark fuscous opposite wing-markings. Hindwings in ♂ whitish-grey, in ♀ grey; cilia whitish.

Hobart, Tasmania; Adelaide, South Australia; in October and December, two specimens. The markings are more slender than in any of the allied species.

33. *Xysm. characota*, n.sp.

♂. 13-15 mm. Head white. Palpi, antennæ, and thorax dark fuscous. Abdomen grey-whitish. Legs dark fuscous, apex of joints and posterior pair whitish. Forewings elongate, costa moderately arched, apex roundpointed, hindmargin obliquely rounded; 7 and 8 stalked; white; markings dark fuscous; a narrow basal mark, somewhat produced along costa; an erect fascia-like mark from inner margin at  $\frac{1}{4}$ , reaching more than half across wing; a moderate fascia from before middle of costa to beyond middle of inner margin; a slightly inwards-angulated fascia from  $\frac{2}{3}$  of costa to anal angle, where it coalesces with a slender submarginal fascia from costa before apex; sometimes some dark fuscous scales on hindmargin: cilia white. Hindwings whitish-grey; cilia whitish.

Sydney and Blackheath (3500 feet), New South Wales; Melbourne, Victoria; in February and April, three specimens.

34. *Xysm. trifasciana*, Walk.

(*Penthina trifasciana*, Walk. 377.)

♂. 16-17 mm. Head white. Palpi and antennæ dark fuscous. Thorax dark fuscous, posterior extremity white. Abdomen pale yellowish-ochreous. Legs dark fuscous, posterior pair pale yellowish-ochreous. Forewings elongate, costa rather strongly arched, apex obtuse, hindmargin obliquely rounded; 7 and 8 stalked; white; markings purple-blackish; a narrow basal mark, produced along costa, sometimes reaching first fascia; three moderately broad fasciæ; first at  $\frac{1}{4}$ , sometimes running into second beneath costa; second from before middle of costa to beyond middle of inner margin; third from about  $\frac{3}{4}$  of costa to anal angle, dilated and furcate on costa; sometimes a slender streak along upper half of hindmargin: cilia whitish-ochreous, towards tips dark fuscous, base also dark fuscous opposite wing-markings. Hindwings dark grey, towards inner margin sometimes suffused with pale ochreous-yellowish; cilia grey, on inner margin pale ochreous-yellowish.

Brisbane, Queensland; Sydney, New South Wales; in April, three specimens. Although the form of variation is curious and exceptional, I have no doubt that the specimens described belong to the same species.

35. *Xysm. melanarthra*, n.sp.

♀. 10 mm. Head pale ochreous-yellowish. Palpi, antennæ, and thorax dark fuscous. Abdomen dark fuscous, posteriorly mixed with pale yellowish, anal tuft ochreous-yellow. Legs dark fuscous, apex of joints whitish-ochreous. Forewings elongate, costa rather strongly arched, apex obtuse, hindmargin obliquely rounded; 7 absent; yellowish-white; markings purple-blackish; a large basal patch, outer edge extending from  $\frac{1}{4}$  of costa to  $\frac{2}{5}$  of inner margin, curved; a rather broad fascia from before middle of costa to beyond middle of inner margin; a fascia from about  $\frac{3}{4}$  of costa to anal angle, dilated and furcate towards costa; a

narrow line along upper half of hindmargin: cilia whitish, basal half dark fuscous opposite wing-markings (imperfect). Hindwings and cilia dark grey.

Albany, West Australia; one specimen in October.

36. *Xysm. chrysura*, n.sp.

♂. 12-13 mm. Head ochreous-yellow, face dark fuscous. Palpi and antennæ dark fuscous. Thorax dark fuscous, posterior extremity yellow-whitish. Abdomen ochreous-yellow, basal third dark fuscous. Legs dark fuscous, posterior pair whitish-yellowish. Forewings elongate, costa moderately arched, apex obtuse, hindmargin obliquely rounded; 7 absent; dark purple-fuscous; four semi-oval ochreous-white spots, two on inner margin in middle and before anal angle, sometimes confluent, two on costa beyond middle and at  $\frac{4}{5}$ ; an irregular ochreous-white streak along upper  $\frac{2}{3}$  of hindmargin, sometimes interrupted: cilia fuscous. Hindwings and cilia dark grey.

Albany, West Australia; in September and October, four specimens.

6. LEPIDOSCIA, n.g.

Head rough-haired; ocelli present; tongue absent. Antennæ  $\frac{2}{3}$ , in ♂ serrate, strongly ciliated (2-3), basal joint with pecten. Labial palpi rather short, porrected, loosely scaled or sometimes with long rough hairs, second joint sometimes with two or three apical bristles, terminal joint moderate, tolerably pointed. Maxillary palpi absent. Posterior tibiæ clothed with long hairs. Forewings with vein 1 furcate, 7 and 8 stalked or coincident, rarely 8 and 9 stalked, 7 when present running to hindmargin, 11 from before middle. Hindwings 1, elongate-ovate, cilia  $\frac{1}{2}$ ; 4 absent, 6 and 7 sometimes from a point.

Doubtless a development of *Xysmatodoma*, from which it differs essentially only by the absence of vein 4 of the hindwings, which is clearly coincident with 5. All the species are Australian. Probably the larvæ are all case-bearers, as in *Xysmatodoma*. I am not acquainted with the ♀ of any one of the species, and it is

therefore not improbable that this sex may be apterous ; however, I have not much material of any species.

1. Hindwings with black basal patch..... 37. *magnifica*.  
Hindwings without black basal patch..... 2.
2. Head yellowish. .... 3.  
Head not yellowish..... 8.
3. Hindwings partly yellow..... 4.  
Hindwings not yellow..... 7.
4. Forewings with two pale fasciæ before middle..... 5.  
Forewings with one pale fascia before middle..... 6.
5. Hindwings with dark area containing yellow spots..... 38. *comochora*.  
Hindwings with dark area not containing yellow spots..... 39. *magnella*.
6. Hindwings with apical third dark fuscous 43. *punctiferella*.  
Hindwings with apical  $\frac{2}{3}$  fuscous..... 44. *tyrobathra*.
7. Forewings with pale subcostal streak..... 40. *melitora*.  
Forewings without pale subcostal streak.. 45. *chloropetala*.
8. Forewings wholly white..... 50. *palleuca*.  
Forewings not wholly white..... 9.
9. Hindwings grey-whitish..... 41. *microsticha*.  
Hindwings grey..... 10.
10. Forewings sharply strigulated with dark fuscous.. .... 42. *strigulata*.  
Forewings not strigulated..... 11.
11. Forewings without pale markings..... 49. *raricoma*.  
Forewings with pale markings..... 12.
12. Forewings with fasciæ ..... 13.  
Forewings with pale marginal spots only.. 48. *amphiscia*.
13. Forewings grey with cloudy whitish fasciæ 47. *sciodesma*.  
Forewings whitish with narrow well-defined dark fasciæ..... 46. *desmophthora*.

37. *Lep. magnifica*, n.sp.

♂. 24 mm. Head black, crown mixed with ferruginous. Palpi, antennæ, and thorax black; thorax crested. Abdomen deep ochreous-yellow, basal third and subapical ring blackish. Legs black, posterior tibiæ ochreous-orange. Forewings oblong, costa gently arched, apex rounded, hindmargin obliquely rounded; 7 absent; purple-black, sprinkled with pale yellowish; four whitish-ochreous fasciæ, on costa ochreous-yellowish; first near base, narrow, irregular, not reaching costa; second at  $\frac{1}{3}$ , moderate, outer edge angulated in middle; third moderate, interrupted in middle, extremities of both halves rounded; in one wing a small costal spot beyond this; fourth from costa at  $\frac{4}{5}$  to hindmargin above anal angle, contracted below middle: cilia dark fuscous, with a whitish-ochreous bar on fourth fascia. Hindwings ochreous-orange; a black basal patch, indented in middle, emitting a short streak near inner margin; a black discal dot; a rather broad dark fuscous apical blotch, reaching to middle of hindmargin, including a yellow dot on costa: cilia ochreous-yellow, round apical blotch dark fuscous.

Ardrossan, South Australia; in September; one specimen (Adelaide Museum). This and the next species differ from the rest in the long rough hairs of the palpi, and this species is also peculiar in the possession of a thoracic crest; in other respects there is no essential difference, and the forms can be conveniently included together.

38. *Lep. comochora*, n.sp.

♂. 25-26 mm. Head orange or ochreous-yellow, face blackish. Palpi, antennæ, thorax, and legs blackish. Abdomen blackish, beneath pale ochreous-yellowish. Forewings elongate, posteriorly somewhat dilated, costa gently arched, apex obtuse, hindmargin obliquely rounded; 7 absent; blackish; markings whitish-ochreous; a fascia near base, attenuated upwards, not quite reaching costa; a fascia-like blotch from inner margin before middle, sometimes almost reaching a small spot or dot on costa at  $\frac{1}{3}$ ; a moderate rounded spot on middle of costa, sometimes

including a black costal dot, and another on inner margin before anal angle; a rather irregular blotch on costa about  $\frac{1}{5}$ , including a black costal dot; a spot on hindmargin above anal angle; a small spot on costa before apex: cilia rather dark fuscous. Hindwings ochreous-yellow; a narrow dark fuscous hindmarginal fascia, forming two strong triangular projections below middle, and merged in a large apical irregularly defined dark fuscous patch, which contains three ochreous-yellow spots, sometimes partly confluent or connected with disc; cilia dark fuscous.

Melbourne, Victoria; two specimens received from Mr. G. H. Raynor and Mr. J. A. Kershaw.

39. *Lep. magnella*, Walk.

(*Incurvaria magnella*, Walk. 489.)

♂. 25 mm. Head yellowish, face fuscous. Thorax dark fuscous. Forewings elongate, dark fuscous; markings ochreous-yellow; a fascia-like spot on inner margin at  $\frac{1}{4}$ , attenuated upwards, not reaching costa; a moderate straight fascia from before middle of costa to middle of inner margin; a triangular spot on inner margin before anal angle; a transverse mark from costa at  $\frac{1}{5}$ , almost confluent with a small spot on hindmargin below middle. Hindwings dark fuscous; basal third ochreous-yellow.

Sydney, New South Wales; the above description is taken from the type in the British Museum, which is the only one known to me.

40. *Lep. melitora*, n.sp.

♂. 15-16 mm. Head yellow-ochreous. Palpi and antennae dark fuscous. Thorax dark fuscous, suffused with ochreous posteriorly. Abdomen light ochreous-yellowish. Legs dark fuscous, posterior pair whitish-ochreous. Forewings elongate, costa moderately arched, apex rounded, hindmargin obliquely rounded; 7 present; dark fuscous, more or less strewn with whitish-ochreous dots; markings whitish ochreous, yellowish-tinged; a subcostal streak from base, terminating in a semicircular spot on middle of costa; an irregular spot on inner margin before

middle, and a semicircular spot before anal angle, sometimes confluent; a spot on costa at  $\frac{2}{3}$ , and a smaller one beyond it; an irregular cloudy submarginal streak: cilia fuscous, mixed with whitish-ochreous. Hindwings rather dark grey; cilia grey.

Albany, West Australia; three specimens in September and October.

41. *Lep. microsticha*, n.sp.

♂. 15-16 mm. Head white. Palpi and antennæ dark fuscous. Thorax white, suffused with fuscous anteriorly. Abdomen whitish-grey. Legs dark fuscous, posterior pair whitish. Forewings elongate, costa moderately arched, apex rounded, hindmargin obliquely rounded; 7 sometimes present; white, with scattered fuscous strigulae, most marked on anterior half of costa; markings rather dark fuscous; a short inwardly oblique streak from costa at  $\frac{2}{3}$ ; apex sometimes bent inwards and continued as a subcostal streak to disc at  $\frac{1}{3}$ ; an inwardly oblique streak from costa at  $\frac{3}{4}$ , and an outwardly oblique streak from anal angle, their extremities sometimes connected; a spot on costa before apex; some hindmarginal dots, sometimes forming a connected streak: cilia white, on costa barred with dark fuscous. Hindwings grey-whitish; cilia whitish.

Albany and York, West Australia; in September and October, four specimens.

42. *Lep. strigulata*, n.sp.

♂. 19 mm. Head fuscous, mixed with whitish on crown. Palpi and antennæ dark fuscous. Thorax and abdomen fuscous. Legs dark fuscous, posterior pair fuscous-whitish. Forewings elongate, costa moderately arched, apex rounded, hindmargin obliquely rounded; 7 absent; whitish, strongly strigulated and reticulated throughout with rather dark fuscous; two or three more conspicuous dark fuscous marks on costa about  $\frac{1}{3}$ , with obsolete indications of a darker fascia connected with them, and two or three other similar marks on costa about  $\frac{3}{4}$ : cilia fuscous-whitish, base more fuscous-tinged. Hindwings pale fuscous; cilia as in forewings.

Ardrossan, South Australia; one specimen in January.



43. *Lep. punctiferella*, Walk.

(*Sentica punctiferella*, Walk. 508.)

♂. 21 mm. Head light yellowish, face fuscous. Thorax dark fuscous. Forewings elongate, dark fuscous; markings whitish; a narrow fascia from middle of costa to middle of inner margin; a transverse bar from costa at  $\frac{3}{4}$ , reaching more than half across wing; a row of small cloudy spots along hindmargin and round apex. Hindwings light ochreous-yellow; apical third dark fuscous.

Sydney, New South Wales; the only specimen I have seen is the type in the British Museum, from which the above description is drawn.

44. *Lep. tyrobathra*, n.sp.

♂. 20-25 mm. Head ochreous-yellowish, face mixed with fuscous. Palpi and antennæ fuscous. Thorax fuscous, anterior margin yellowish. Abdomen pale ochreous-yellowish. Legs dark fuscous, apex of joints and posterior tibiæ whitish-ochreous. Forewings elongate, costa rather strongly arched, apex obtuse, hindmargin very obliquely rounded; 7 absent; 8 and 9 stalked; rather dark fuscous; markings whitish-ochreous; a basal dot; a small elongate spot on inner margin at  $\frac{1}{4}$ ; a moderate irregular fascia before middle, broadly dilated on costa, where it includes two or three dark strigulæ; a moderate spot on costa at  $\frac{3}{4}$ , and another on inner margin before anal angle; an irregular submarginal series of cloudy dots: cilia pale fuscous, base darker. Hindwings fuscous; basal third pale ochreous-yellowish; cilia fuscous, on inner margin whitish-yellowish.

Melbourne, Victoria; two specimens received from Mr. G. H. Raynor and Mr. J. A. Kershaw.

45. *Lep. chloropetala*, n.sp.

♂. 15 mm. Head whitish-ochreous, yellowish-tinged. Palpi, antennæ, and thorax dark fuscous. Abdomen grey. Legs dark fuscous, posterior pair ochreous-whitish. Forewings elongate, costa gently arched, apex obtuse, hindmargin rounded, rather strongly oblique; 7 absent; rather dark fuscous; markings

whitish-ochreous, yellowish-tinged ; a large triangular blotch extending on inner margin from near base to middle, its apex nearly reaching costa at  $\frac{2}{5}$  ; a large subquadrate spot on inner margin before anal angle ; a small spot on costa beyond middle, and another at  $\frac{3}{4}$  : cilia fuscous. Hindwings and cilia grey.

Sydney, New South Wales ; one specimen in August.

46. *Lep. desmophthora*, n.sp.

♂. 17 mm. Head whitish. Palpi and antennæ dark fuscous. Thorax dark fuscous, with a cloudy whitish anterior spot. Abdomen grey. Legs dark fuscous, posterior pair grey-whitish. Forewings elongate, costa gently arched, apex obtuse, hindmargin rounded, rather strongly oblique ; 7 absent ; ochreous-whitish ; markings rather dark fuscous ; a streak along basal third of costa, extended at base to inner margin ; a moderately broad fascia from  $\frac{3}{5}$  of costa to  $\frac{3}{5}$  of inner margin, suddenly strongly attenuated on costal fourth ; a somewhat irregular fascia from  $\frac{4}{5}$  of costa to anal angle ; some fuscous scales on hindmargin : cilia pale whitish-fuscous, mixed with ochreous-whitish. Hindwings grey ; cilia whitish-grey.

Wirrabara, South Australia ; one specimen in October.

47. *Lep. sciodesma*, n.sp.

♂. 13-15 mm. Head whitish. Palpi, antennæ, thorax, abdomen and legs dark grey ; posterior legs grey-whitish. Forewings elongate ; costa gently arched, apex obtuse, hindmargin rounded, rather strongly oblique ; 7 absent ; grey ; markings formed by a whitish suffusion ; two rather broad very ill-defined cloudy fasciæ, first from  $\frac{2}{5}$  of costa to before middle of inner margin, second from  $\frac{3}{4}$  of costa to anal angle ; a cloudy suffusion towards hindmargin : cilia grey, base mixed with whitish. Hindwings grey ; cilia whitish-grey.

Deloraine and Hobart, Tasmania ; in November, five specimens.

48. *Lep. amphiscia*, n.sp.

♂. 10 mm. Head whitish-grey. Palpi, antennæ, and thorax dark fuscous. Abdomen grey. Legs dark fuscous, posterior pair whitish-fuscous. Forewings elongate, costa moderately arched, apex obtuse, hindmargin obliquely rounded; 7 absent; grey, with some scattered whitish scales; an obscure cloudy whitish spot on middle of costa, another on middle of inner margin, a third on costa at  $\frac{3}{4}$ , a fourth before anal angle, and a fifth at apex, all very ill-defined: cilia grey, base mixed with whitish. Hindwings grey; cilia whitish-grey.

Deloraine, Tasmania; one specimen in November.

49. *Lep. raricoma*, n.sp.

♂. 14 mm. Head grey. Palpi, antennæ, thorax, abdomen, and legs dark fuscous; posterior legs whitish-fuscous. Forewings elongate, costa gently arched, apex rounded, hindmargin obliquely rounded; 7 absent; rather dark fuscous: cilia fuscous, base darker. Hindwings rather dark fuscous, thinly scaled; cilia fuscous, base darker.

Blackheath (3500 feet), New South Wales; in October, one specimen.

50. *Lep. palleuca*, n.sp.

♂. 14-15 mm. Head, palpi, thorax, and abdomen white. Antennæ and legs dark fuscous, posterior legs white. Forewings elongate, rather narrow, costa gently arched, apex round-pointed, hindmargin extremely obliquely rounded; 7 absent; white: cilia white. Hindwings and cilia white.

Fernshaw and Mount Macedon, Victoria; Blackwood, South Australia; in October and November, five specimens.

## 7. ERIOCOTTIS, Z.

Head rough-haired; ocelli absent (or in exotic species present); tongue rudimentary. Antennæ  $\frac{2}{3}$ , basal joint without pecten. Labial palpi moderate, porrected, second joint loosely rough-scaled (in exotic species with apical bristles), terminal joint short,

tolerably pointed. Maxillary palpi moderately long, tolerably filiform, folded. Posterior tibiæ clothed with long hairs. Forewings with vein 1 furcate, 7 to hindmargin, 11 from before middle. Hindwings 1, elongate-ovate, cilia  $\frac{2}{3}$ ; veins tolerably parallel.

A genus of very few species, hitherto only known from Southern Europe and North Africa. In the absence of the ♂, it is uncertain whether the following species is correctly referred to it; but it agrees with the generic characters in all important particulars. It is possible however that the ♂ might show peculiar characters which might involve the creation of a new genus.

51. *Er. euryphracta*, n.sp.

♀. 15 mm. Head and palpi pale yellowish-ochreous. Antennæ light fuscous. Thorax, abdomen. and legs dark fuscous, posterior legs whitish-ochreous. Forewings elongate, costa gently arched, apex roundpointed, hindmargin very obliquely rounded; whitish-ochreous, yellowish-tinged; markings dark purplish-fuscous; a streak along basal half of costa, meeting median fascia; a cloudy streak along inner margin from base to beyond middle, not reaching fascia; a rather broad straight fascia from costa beyond middle to  $\frac{3}{4}$  of inner margin; a small spot on costa beyond this; a moderate hindmarginal fascia from apex to anal angle, attenuated to a point beneath: cilia whitish-ochreous mixed with fuscous, terminal third fuscous. Hindwings rather dark fuscous, towards base with some pale yellowish hairs; cilia whitish-ochreous, yellowish-tinged, base mixed with pale fuscous, tips fuscous opposite apex.

Port Lincoln, South Australia; in November, one specimen.

8. MESOPHERNA, n.g.

Head densely rough-haired, face loosely haired; ocelli absent; tongue developed. Antennæ  $\frac{2}{3}$ , in ♂ filiform, ciliated (1), basal joint without pecten. Labial palpi moderate, slender, ascending, second joint shortly rough-scaled beneath, with two or three apical bristles, terminal joint moderate, pointed. Maxillary palpi very short, obtuse, loosely scaled. Posterior tibiæ clothed with long

hairs. Forewings with vein 1 furcate, 7 and 8 sometimes stalked, 7 to costa or apex, 11 from before middle. Hindwings 1, elongate-ovate, cilia  $\frac{3}{4}$ ; 5 and 6 sometimes stalked.

At present restricted to the three following species; it indicates rather accurately the connecting link between the *Tinea* and *Xysmatodoma* groups.

- |  |                        |
|--|------------------------|
| 1. Head wholly white; forewings narrow.....                | 2.                     |
| Forehead grey; forewings not narrow.....                   | 52. <i>palustris</i> . |
| 2. Margins of white median streak indented in middle.....  | 53. <i>castella</i> .  |
| Margins of white median streak not indented in middle..... | 54. <i>isomacra</i> .  |

52. *Mes. palustris*, n.sp.

♂♀. 14-18 mm. Head white, hairs of forehead mixed with grey. Palpi dark grey, beneath white. Antennæ grey. Thorax pale brownish-ochreous, shoulders sprinkled with white. Abdomen grey. Legs dark fuscous, posterior pair grey-whitish. Forewings elongate, costa moderately arched, apex roundpointed, hindmargin very obliquely rounded; 7 and 8 separate; light brownish-ochreous, sprinkled with fuscous; a moderately broad cloudy irregular white subcostal streak from base to  $\frac{2}{3}$ , thence bent upwards to costa at  $\frac{1}{5}$ , lower edge indented by ochreous-brown round dots at  $\frac{1}{4}$ ,  $\frac{2}{5}$ , and  $\frac{3}{5}$ ; a cloudy white submarginal or marginal suffusion from apex to above anal angle: cilia pale brownish-ochreous, somewhat mixed with whitish. Hindwings grey; cilia grey-whitish.

Sydney, New South Wales; Deloraine, Tasmania; in October and November, taken commonly in swampy places.

53. *Mes. castella*, Walk.

(*Prays castella*, Walk. 541.)

♂♀. 21-24 mm. Head and thorax white. Palpi white, above dark fuscous. Antennæ dark grey, mixed with white. Abdomen grey, sides and segmental margins white. Legs dark fuscous,

apex of joints and hairs of posterior tibiae white. Forewings elongate, narrow, costa gently arched, apex roundpointed, hindmargin very obliquely rounded; 7 and 8 separate; silvery-white; markings rather dark brown-grey, mixed with some blackish-fuscos scales; a round dot near base in middle; a cloudy streak along costa from near base to apex, attenuated anteriorly, lower edge forming a triangular projection in middle; a cloudy streak along inner margin from near base to beyond anal angle, upper edge forming an irregular flat projection in middle and a strong triangular projection on anal angle: cilia white, on costa and anal angle suffused with fuscous. Hindwings rather light fuscous, hindmargin darker; cilia fuscous-whitish.

Sydney, New South Wales; Melbourne, Victoria; in November, three specimens.

54. *Mes. isomacra*, n.sp.

♀. 30 mm. Head white. Palpi grey, beneath white. Antennae whitish. Thorax white, sprinkled with dark fuscous. Abdomen grey. Legs dark fuscous, apex of joints whitish, posterior tibiae grey-whitish. Forewings very elongate, costa gently arched, apex obtuse, hindmargin very obliquely rounded; 7 and 8 stalked; light fuscous, suffusedly mixed with whitish and dark fuscous; a whitish suffusion forming a broad cloudy median longitudinal streak from base to apex, edged beneath by a narrow suffused blackish-fuscous streak, which sends a short projection upwards at  $\frac{4}{5}$ : cilia fuscous, mixed with whitish towards base. Hindwings and cilia rather light fuscous.

Melbourne, Victoria; one specimen received from Mr. G. H. Raynor.

9. *ACRIDOTARSA*, n.g.

Head rough-haired; ocelli present; tongue absent. Antennae  $\frac{5}{6}$ , in ♂ biserrate, pubescent, basal joint with well-defined pecten. Labial palpi rather long, porrected, second joint with long dense projecting tuft of scales towards apex beneath, terminal joint half second, slender, filiform, acute, ascending. Maxillary palpi obsolete. Posterior tibiae rather long, bent, with short hairs,

middle and posterior tarsi elongate, much longer than tibiae. Forewings with vein 1 furcate, 7 to apex, 11 from  $\frac{1}{3}$ . Hindwings 1, elongate-ovate, cilia 1; veins 5 and 6 somewhat approximated at base.

A curious and distinct genus, perhaps a development of *Mesopherna*.

55. *Acr. mylitis*, n.sp.

♂. 13-15 mm. Head white. Palpi white, second joint externally pale ochreous except apex. Antennae whitish-ochreous. Thorax white, patagia pale shining ochreous. Abdomen grey. Legs grey-whitish, anterior pair dark grey. Forewings elongate, costa moderately arched, apex roundpointed, hindmargin very obliquely rounded; bronzy-ochreous, densely and suffusedly irrorated with white; the absence of irroration forms a slender dark fascia from costa beyond middle to anal angle, and several dark strigulae on posterior half of costa, and towards anal angle: cilia grey-whitish, basal half obscurely barred with greyish-ochreous. Hindwings and cilia grey.

Geraldton, West Australia; in November, seven specimens.

10. IPHIERGA, n.g.

Head densely rough-haired; ocelli present; tongue absent. Antennae  $\frac{1}{2}$ , in ♂ strongly bipectinated, basal joint without pecten. Labial palpi moderately long, curved, ascending, second joint with dense projecting scales beneath, sometimes forming a long tuft in front, terminal joint moderate, rather thick, somewhat pointed. Maxillary palpi absent. Posterior tibiae clothed with appressed scales. Forewings with vein 1 furcate, 4 sometimes absent, 7 absent, 11 from before middle. Hindwings 1, elongate-ovate, cilia  $\frac{2}{5}$ ; vein 4 absent, transverse vein absent between 6 and 7.

A distinctly characterised genus, confined to Australia; it is nearly related to *Ardiosteres*.

- |                               |                        |
|-------------------------------|------------------------|
| 1. Palpi strongly tufted..... | 57. <i>pentulias</i> . |
| Palpi slightly tufted.....    | 2.                     |

## 2. Forewings with dark fuscous submarginal

fascia..... 56. *euphragma*.Forewings without dark submarginal fascia... 58. *stasiodes*.56. *Iph. euphragma*, n.sp.

♂. 13-14 mm. Head and palpi deep ochreous-yellow; palpi slightly tufted. Antennæ ochreous-whitish. Thorax dark fuscous. Abdomen light grey. Legs dark fuscous, apex of joints and posterior pair whitish. Forewings elongate, costa rather strongly arched, apex rounded, hindmargin rounded, somewhat oblique; 4 present; white, slightly ochreous-tinged; markings blackish-fuscous; a narrow basal patch, outer edge straight; two straight irregular-edged fasciæ, first before, second beyond middle; a dot or small spot on costa at  $\frac{3}{4}$ , and sometimes one on inner margin before anal angle; an irregular variable submarginal fascia from costa before apex to anal angle, when broad becoming almost marginal: cilia white, base spotted with dark fuscous opposite wing-markings. Hindwings and cilia light or dark grey.

Duaringa, Queensland; Mount Lofty, South Australia; four specimens received from Mr. G. Barnard.

57. *Iph. pentulias*, n.sp.

♂. 17 mm. Head and palpi ferruginous-ochreous; palpi strongly tufted. Antennæ grey. Thorax dark fuscous. Abdomen grey. Legs dark fuscous, posterior pair whitish. Forewings elongate, costa moderately arched, apex rounded, hindmargin obliquely rounded; 4 absent; pale whitish-ochreous, brownish-tinged; markings blackish-fuscous; five slender nearly straight rather irregular-edged fasciæ; first almost basal; second at  $\frac{1}{4}$ ; third median, interrupted above and below middle; fourth at  $\frac{2}{3}$ , interrupted below middle; fifth from  $\frac{1}{5}$  of costa to anal angle; a spot on costa before apex, and two small spots on hindmargin below apex: cilia whitish-ochreous. Hindwings light grey; cilia grey-whitish.

Duaringa, Queensland; one specimen received from Mr. G. Barnard.



58. *Iph. stasiodes*, n.sp.

♂. 13-15 mm. Head and palpi yellow-ochreous, ferruginous-tinged; palpi hardly tufted. Antennæ ochreous. Thorax fuscous, anterior margin black. Abdomen pale ochreous. Legs dark fuscous, apex of joints and posterior pair whitish-ochreous. Forewings elongate, costa moderately arched, apex rounded, hind-margin obliquely rounded; 4 absent; pale whitish-brown; markings blackish-fuscous; a narrow subbasal fascia; two slender somewhat angulated fasciæ, widely interrupted below middle and sometimes narrowly beneath costa also, first from  $\frac{2}{3}$  of costa to  $\frac{2}{3}$  of inner margin, second from  $\frac{3}{5}$  of costa to before anal angle; some irregular scattered dots in disc; three small spots on posterior fourth of costa: cilia whitish-ochreous. Hindwings and cilia whitish-fuscous.

Duaringa, Queensland; four specimens received from Mr. G. Barnard.

## 11. ARDIOSTERES, n.g.

Head with short dense rough hairs; ocelli absent; tongue absent. Antennæ  $\frac{1}{2}$ , in ♂ dentate, fasciculate-ciliated (2), basal joint with pecten. Labial palpi moderately long, porrected, clothed with dense loose scales somewhat tufted in front, terminal joint very short, concealed, pointed. Maxillary palpi absent. Thorax with posterior crest. Posterior tibiæ clothed with appressed scales. Forewings with vein 1 furcate, 7 and 8 stalked, 7 to apex, 11 from before middle. Hindwings 1, elongate-ovate, cilia  $\frac{1}{4}$ ; veins tolerably parallel.

The single species is confined to Australia. The genus, distinguished by the peculiar palpi, is probably related to the following.

59. *Ard. moretonella*, Walk.

(*Tinea moretonella*, Walk. Suppl. 1812.)

♂♀. 18-24 mm. Head ochreous-yellow. Palpi dark fuscous, apex ochreous-yellow. Antennæ dark fuscous. Thorax dark fuscous, apex of patagia whitish-ochreous. Abdomen pale yellowish-ochreous. Legs dark fuscous, apex of joints and posterior pair

whitish-ochreous. Forewings elongate, moderately broad, costa moderately arched, apex obtuse, hindmargin rather obliquely rounded; pale whitish-ochreous; markings rather dark fuscous, irregularly margined with darker; a rather broad irregular basal fascia, including one or two pale spots; a moderate fascia from  $\frac{1}{4}$  of costa to  $\frac{2}{5}$  of inner margin, posterior edge irregularly dilated towards middle; a small spot on costa beyond this, and sometimes one or two strigulae in disc; an irregular fascia from  $\frac{2}{3}$  of costa, broadly dilated downwards to inner margin, where it extends from  $\frac{3}{5}$  to anal angle, and contains two or three pale spots or strigulae; a spot on costa beyond this, its apex sometimes connected with it; an irregular apical blotch, containing three or four pale spots, and connected by a bar with preceding fascia below middle: cilia whitish-ochreous, sharply barred with dark fuscous, and with a dark fuscous antemedian line. Hindwings rather dark fuscous; cilia fuscous somewhat mixed with whitish-ochreous.

Duaringa, Queensland; Bathurst, New South Wales; in March, ten specimens. The markings are rather variable, but the species is easy to recognise.

## 12. SCARDIA, Tr.

Head densely rough-haired; ocelli present; tongue short. Antennae  $\frac{3}{4}$ - $\frac{5}{6}$ , joints closely set, serrate, in ♂ pubescent, basal joint with pecten. Labial palpi rather long, curved, ascending, second joint with dense rough scales beneath more or less tufted in front, with several apical bristles, terminal joint rather long or moderate, shortly rough-scaled in front or more or less dilated with rough scales, obtuse or somewhat pointed. Maxillary palpi moderate or rather short, porrected, loosely scaled. Thorax sometimes with posterior crest. Posterior tibiae rough-haired. Forewings with vein 1 furcate, 4 sometimes absent, 7 to costa, 8 and 9 sometimes stalked, 11 from before middle. Hindwings 1, elongate-ovate, cilia  $\frac{1}{2}$ - $\frac{2}{3}$ ; veins tolerably parallel.

A genus of few species, including several in Europe and North America besides the Australian. The larvæ are not case-bearers.

- |   |                             |
|---|-----------------------------|
| 1. Forewings with raised tufts on surface.....        | 66. <i>primaeva</i> .       |
| Forewings without tufts.....                          | 2.                          |
| 2. Forewings with vein 4 present.....                 | 3.                          |
| Forewings with vein 4 absent.....                     | 4.                          |
| 3. Forewings with dark median fascia.....             | 64. <i>clonodes</i> .       |
| Forewings without dark median fascia.....             | 65. <i>celsella</i> .       |
| 4. Forewings silvery-white.....                       | 5.                          |
| Forewings ochreous.....                               | 6.                          |
| 5. Forewings with 6 or 7 dark fasciæ.....             | 60. <i>australasiella</i> . |
| Forewings with 9 or 10 dark fasciæ.....               | 61. <i>dictyotis</i> .      |
| 6. Forewings with ochreous-brown dorsal blotches..... | 62. <i>inconcisella</i> .   |
| Forewings without brown blotches.....                 | 63. <i>pyrochroa</i> .      |

60. *Scard. australasiella*, Don.

(*Tinea australasiella*, Don., Ins. N. Holl.; *T. cossuna*, Lew., Ins. N.S. Wales, 19; *T. clathrata*, Feld., Reis. Nov. pl. CXL. 30.)

♂♀. 20-31 mm. Head orange. Palpi orange, base usually dark fuscous. Antennæ dark fuscous. Thorax pale orange, anterior third dark fuscous. Abdomen rather dark fuscous, sides and segmental margins and anal tuft light orange, towards base wholly light orange. Legs dark fuscous, posterior tibiæ light orange. Forewings elongate, rather narrow, costa gently arched, apex roundpointed, hindmargin very obliquely rounded; 4 absent, silvery-white; base pale orange; six or seven slender somewhat irregular direct purple-blackish fasciæ; second and third usually connected in middle, third and fourth usually connected or confluent near inner margin and sometimes connected above middle, fourth and fifth connected below middle, fifth sometimes interrupted in middle, fifth and sixth connected in middle, seventh connected once or twice with sixth or often partially or wholly absent: cilia whitish-orange, more or less strongly barred with blackish. Hindwings dark fuscous-purplish; cilia whitish-orange, on costa and sometimes round apex more or less suffused with purplish-grey.

Brisbane, Queensland ; Sydney, New South Wales ; Ballarat and Warragul, Victoria ; Georges Bay, Tasmania ; Wirrabara, Port Lincoln, and Kangaroo Island, South Australia ; in September, October, January and April, rather common. The larva feeds on lichens on rocks. Felder's insect is represented as being from Fiji, but this is not at all probable, and as his localities are frequently erroneous, the record may be neglected until confirmed.

61. *Scard. dictyotis*, n.sp.

♂♀. 25-31 mm. Differs from *australasiella* only as follows: Abdomen dark fuscous, segmental margins and anal tuft light orange. Forewings with nine or ten slender irregular fasciæ; third twice connected with second and fourth, sometimes obsolete except between connections, fourth twice connected with fifth, fifth twice connected with sixth and sometimes confluent with it on margins, sixth connected with seventh below and sometimes above middle, seventh connected with eighth in middle, eighth twice connected with ninth, sometimes interrupted above middle, tenth subapical, often interrupted.

Perth and Albany, West Australia ; in October and November, rather common. If intermediate forms are discovered in the connecting districts, this and the preceding can be united as geographical forms of the same species ; at present they remain quite distinct, and it seems best to give this form a name.

62. *Scard. inconcisella*, Walk.

(*Tinea inconcisella*, Walk. 474.)

♂♀. 14-26 mm. Head and palpi light yellow-ochreous, second joint of palpi externally sprinkled with dark fuscous. Antennæ fuscous. Thorax whitish-ochreous, partially suffused with deeper ochreous and anteriorly with fuscous. Abdomen fuscous. Legs dark fuscous, apex of joints and hairs of posterior tibiæ whitish-ochreous. Forewings elongate, costa gently arched, apex round-pointed, hindmargin very obliquely rounded ; 4 absent ; light ochreous, partially suffused with brownish-ochreous, deeper in ♂,

strewn with small indistinct subquadrate whitish-ochreous spots arranged in about three longitudinal series and on edges of dark markings, and partially margined or connected by blackish scales; disc sometimes partially suffused with whitish-ochreous; a wedge-shaped ochreous-brownish blotch on base of inner margin, its apex extending to disc at  $\frac{1}{3}$ ; a semicrescentic ochreous-brown blotch from inner margin beyond middle, very obliquely curved over posteriorly, not reaching half across wing; a blackish longitudinal suffusion towards hindmargin in middle, suffused with brown beneath: cilia ochreous mixed with blackish-fuscous, barred with ochreous-whitish twice near apex and twice at anal angle. Hindwings dark fuscous-purplish; cilia light purplish-fuscous.

Murrurundi, Sydney, and Cooma (3000 feet), New South Wales; Melbourne, Victoria; from September to February, common. The larva feeds in rotten wood.

63. *Scard. pyrochroa*, n.sp.

♂. 14-16 mm. Head whitish-ochreous, sides of crown orange-ochreous. Palpi whitish-ochreous, second joint externally sprinkled with dark fuscous. Antennæ whitish-ochreous. Thorax whitish-ochreous, shoulders suffused with ochreous-orange. Abdomen whitish-ochreous, last segment fuscous except anal tuft. Legs pale ochreous. Forewings elongate, costa gently arched, apex roundpointed, hindmargin very obliquely rounded; 4 absent; ochreous-orange, irregularly marbled with pearly whitish-yellowish or whitish; some fine scattered black scales posteriorly, especially towards anal angle; cilia pale whitish-yellowish, mixed with ochreous-orange, tips dark fuscous on anal angle and on a subapical dot. Hindwings dark fuscous-purplish; cilia whitish-ochreous, purplish-tinged.

Brisbane, Queensland; two specimens in September.

64. *Scard. clonodes*, n.sp.

♂. 21 mm. Head and palpi whitish-ochreous, palpi externally mixed with dark fuscous. Antennæ fuscous. Thorax whitish-

ochreous, shoulders mixed with fuscous. Abdomen fuscous. Legs dark fuscous, with numerous whitish-ochreous rings. Forewings elongate, costa moderately arched, apex obtuse, hindmargin obliquely rounded; 4 present, 8 and 9 stalked; light ochreous-brownish, with irregularly scattered dark fuscous and whitish strigulae and small spots; costa spotted with blackish-fuscous; a rather dark fuscous spot beneath costa at  $\frac{1}{4}$ , and one at  $\frac{1}{4}$  of inner margin; a moderate rather dark fuscous fascia from beyond middle of costa to beyond middle of inner margin; an irregular band proceeding from costal extremity of this to  $\frac{4}{5}$  of disc and thence to costa before apex: cilia fuscous, irregularly barred with dark fuscous and whitish. Hindwings rather dark purplish-fuscous; cilia fuscous-whitish, with dark fuscous cloudy basal line and suffusedly barred with dark fuscous.

Sydney (South Creek), New South Wales; one specimen in March.

65. *Scard. celsella*, Walk.

(*Tinea celsella*, Walk. 482; *T. adjunctella*, ib. 1006.)

♀. 20 mm. Head and palpi light ochreous mixed with rather dark fuscous. Antennae fuscous. Thorax and abdomen rather dark fuscous. Legs dark fuscous, apex of joints whitish-ochreous. Forewings elongate, costa moderately arched, apex obtuse, hindmargin rounded, rather strongly oblique; 4 present; light fuscous, strewn with dark fuscous or blackish scales, tending to form transverse strigulae; costa paler, spotted with blackish-fuscous; a small cloudy dark fuscous spot in disc before middle, another on fold beneath middle, and a third larger in disc at  $\frac{2}{3}$ ; a dark fuscous suffusion towards hindmargin: cilia light fuscous mixed with dark fuscous. Hindwings rather dark purplish-fuscous; cilia fuscous-whitish, ochreous-tinged, with a cloudy fuscous line near base.

Murrurundi and Newcastle, New South Wales; two specimens in November.

66. *Scard. primaeva*, n.sp.

♂♀. 14-17 mm. Head, palpi, antennae, thorax, abdomen, and legs dark fuscous; palpi more or less mixed with ochreous-whitish;

legs with apex of joints ochreous-whitish. Forewings elongate, in ♀ narrower, costa moderately arched, apex obtuse, hindmargin obliquely rounded; 4 present, 7 and 8 sometimes stalked; surface with several tufts of raised scales towards inner margin; in ♂ dark slate-colour, coarsely irrorated with black, forming irregular spots in disc, with ochreous-white dots at base and anal angle, and extreme costal edge ochreous-white from  $\frac{2}{5}$  to near apex, marked with black spots; in ♀ purplish-fuscous, irrorated with dark fuscous, most strongly in disc, costa spotted with blackish-fuscous, with two blackish-fuscous rather oblique fasciæ from costa before and beyond middle, becoming obsolete before inner margin, second generally followed by a more or less distinct pale suffusion extending to apex: cilia slaty-fuscous irrorated with blackish. Hindwings rather dark fuscous, purplish-tinged; cilia fuscous, with cloudy dark fuscous basal line.

Toowoomba (2000 feet) and Brisbane, Queensland; Newcastle and Sydney, New South Wales; from September to February, not uncommon.

### 13. MIMOSCOPA, n.g.

Head rough-haired; ocelli present; tongue absent. Antennæ  $\frac{5}{6}$  in ♂ filiform, shortly ciliated, basal joint with pecten. Labial palpi moderate, porrected, second joint somewhat rough-scaled towards apex beneath and with some scattered bristles, terminal joint moderate, filiform, tolerably pointed. Maxillary palpi long, filiform, folded. Posterior tibiæ clothed with rough hairs. Forewings with vein 1 furcate, 7 to costa, 11 from before middle. Hindwings 1, elongate-ovate, cilia  $\frac{4}{5}$ ; transverse vein absent between 4 and 5, forked parting-vein strongly defined, 5 and 6 somewhat approximated.

Nearly related to *Tinea*, of which it is probably an offshoot; but the single species has a peculiar facies, nearly resembling the genus *Catoryctis* in the *Xyloryctidae*; whether the resemblance has anything to do with mimicry, or is associated with a similar habitat, there is at present no evidence to show.

67. *Mim. ochetaula*, n.sp.

♂. 13 mm. Head fuscous-whitish, sides of crown white, face more fuscous-tinged. Palpi fuscous, apex of joints whitish. Antennæ pale fuscous. Thorax ochreous-brown. Abdomen fuscous. Legs dark fuscous; apex of joints and hairs of posterior tibiæ whitish-ochreous. Forewings elongate, costa moderately arched, apex roundpointed, hindmargin slightly sinuate, very oblique; ochreous-brown; a rather broad straight white median longitudinal streak from base to apex, lower edge triangularly indented at  $\frac{2}{3}$ ; a narrow white longitudinal subdorsal streak from base, becoming obsolete towards anal angle; a whitish suffusion on costa about  $\frac{3}{4}$ : cilia fuscous-whitish, with two cloudy dark ochreous-fuscous lines, and a white bar at apex. Hindwings rather light grey; cilia whitish-grey.

Sydney, New South Wales; in March, one specimen.

## 14. BLABOPHANES, Z.

Head densely rough-haired; ocelli absent; tongue short. Antennæ  $\frac{5}{6}$ , in ♂ pubescent-ciliated or simple, joints closely set, basal joint with small pecten. Labial palpi moderate, porrected, with tolerably appressed scales, second joint with several long bristles towards apex, terminal joint moderate, obtuse or tolerably pointed. Maxillary palpi long, tolerably filiform, folded. Posterior tibiæ clothed with hairs. Forewings with a naked usually transparent depression in disc beneath; vein 1 furcate, 3 and 4 stalked, sometimes 6 and 7, or 7 and 8, or 9 and 10 stalked, 7 to costa, 11 from near middle or sometimes from near posterior angle of cell. Hindwings 1, elongate-ovate, cilia  $\frac{3}{4}$ ; sometimes 5 and 6 stalked.

A genus of limited extent but cosmopolitan distribution; it is a direct development of *Tinea*. The larvæ feed on refuse of various kinds; hence the species are sometimes domestic; one of the Australian species has thus been introduced from Europe, and another is common to Australia and New Zealand; the other two are endemic.



- |  |                           |
|--|---------------------------|
| 1. Forewings with well-marked pale dorsal streak | 2.                        |
| Forewings without pale dorsal streak..... ..     | 3.                        |
| 2. Head ferruginous-ochreous..... ..             | 71. <i>ferruginella</i> . |
| Head ochreous-whitish..... ..                    | 70. <i>ethelella</i> .    |
| 3. Forewings dark fuscous with white blotches    | 68. <i>meliorella</i> .   |
| Forewings whitish-ochreous with dark fuscous     |                           |
| blotch..... ..                                   | 69. <i>argillacea</i> .   |

68. *Blab. meliorella*, Walk.

(*Tinea meliorella*, Walk. 483 ; *T. oecophoroides*, ib. 1005 ; *T. vivipara*, Scott, Trans. Ent. Soc. N. S. Wales, I. 33, pl. 4.)

♂♀. 12-21 mm. Head white. Palpi blackish-fuscous, tip white. Antennæ dark-fuscous, towards apex more whitish. Thorax blackish or dark fuscous, with a white anterior spot. Abdomen pale ochreous-yellowish. Legs blackish, posterior pair pale ochreous yellowish. Forewings elongate, rather narrow, costa gently arched, apex roundpointed, hindmargin very obliquely rounded ; ochreous-fuscous or purplish-fuscous, mixed or suffused with blackish-fuscous ; markings white, sometimes ochreous-tinged ; a large trapezoidal blotch occupying basal  $\frac{2}{3}$  of wing except base and a streak along costa ; a large semioval blotch on costa beyond middle ; a variable spot on anal angle, sometimes nearly obsolete ; a variable spot on costa before apex, and another on hindmargin beneath apex, their extremities sometimes almost coalescing ; cilia white, with broad dark fuscous bands at apex and above anal angle. Hindwings fuscous-purplish, sometimes brassy-tinged ; cilia pale whitish-yellowish, sometimes with a dark grey suffusion at apex.

Duaringa, Toowoomba (2000 feet), and Brisbane, Queensland ; Sydney, Bowenfels, and Bathurst (2500 feet), New South Wales ; Melbourne and Warragul, Victoria ; Wirrabara, Mount Lofty, and Port Lincoln, South Australia ; Geraldton and Albany, West Australia ; from June to February, common and probably of universal distribution on the main land, but not yet found in Tasmania. Scott observed this species to be viviparous ; there is

nothing improbable in this, as the larvæ may feed in some rapidly decaying substance, though he was unable to rear them ; I do not doubt the correctness of his observation, but have been unable to confirm it ; on the contrary, I have more than once observed the female in confinement deposit eggs in the normal way ; hence the habit must be variable, and may perhaps be influenced by the heat of the weather, or by the undue retention of the eggs in the absence of suitable food for the larvæ.

69. *Blab. argillacea*, n.sp.

♂♀. 13-18 mm. Head white, ochreous-tinged. Palpi dark fuscous, mixed with whitish. Antennæ whitish-fuscous. Thorax fuscous-whitish, patagia dark fuscous. Abdomen whitish-grey. Legs dark fuscous, apex of joints and posterior pair whitish. Forewings elongate, rather narrow, costa gently arched, apex obtuse, hindmargin obliquely rounded ; pale ochreous, densely and suffusedly irrorated with ochreous-whitish, with a few scattered blackish scales, especially towards costa posteriorly and anal angle ; anterior half of costal edge blackish ; three blackish dots on submedian fold, indicating marginal indentations of an obsolete pale dorsal streak ; discal impression pale, placed in an oblique ill-defined dark fuscous suffusion : cilia pale whitish-ochreous, with rows of black points. Hindwings pale whitish-fuscous, with brassy-yellowish reflections ; cilia ochreous-whitish.

Melbourne and Warragul, Victoria ; Adelaide, South Australia ; four specimens in September and December.

70. *Blab. ethelella*, Newm.

(*Tinea ethelella*, Newm., Trans. Ent. Soc. Lond. iii. (n.s.), 288 ; *T. rectella*, Walk. 482 ; *Blabophanes namuella*, Feld., Reis. Nov. pl. CXL. 44 ; *B. ethelella*, Meyr., Trans. N.Z. Inst. 1887, 97.)

♂♀. 13-20 mm. Head ochreous-whitish. Thorax dark fuscous, with broad ochreous-white dorsal stripe. Forewings dark fuscous ; costal area dotted with ochreous-whitish ; an ochreous-whitish irregular-edged dorsal streak from base to anal angle ; a transparent ochreous-whitish discal spot : cilia ochreous-whitish, barred

with dark fuscous, and with two dark fuscous lines. Hindwings light grey; cilia whitish-grey, more whitish terminally.

Glen Innes (3500 feet), Bathurst, Sydney, and Cooma (3000 feet), New South Wales; Melbourne, Victoria; Georges Bay and Hobart, Tasmania, Wirrabara and Mount Lofty, South Australia; York and Albany, West Australia; also throughout New Zealand: from September to May, common everywhere, but usually near dwellings, often at lamps.

71. *Blab. ferruginella*, Hb.

(*Tinea ferruginella*, Hb.; *Blabophanes ferruginella*, Meyr., Trans. N.Z. Inst. 1887, 97.)

♂♀. 10-13 mm. Head ferruginous-ochreous. Thorax dark fuscous, with broad whitish-ochreous dorsal stripe. Forewings dark fuscous; costal and posterior areas coarsely strigulated with whitish-ochreous; a whitish-ochreous or pale ochreous irregular-edged dorsal streak from near base to anal angle; a large transparent ochreous-whitish discal spot: cilia whitish-ochreous, barred with dark fuscous, on hindmargin sometimes obsoletely. Hindwings pale grey; cilia grey-whitish.

Toowoomba (2000 feet), Queensland; Bathurst and Sydney, New South Wales; Melbourne, Victoria; Hobart, Tasmania; Perth, West Australia; from August to March and in June, rather common, but less so than the preceding. An accidental introduction from Europe, occurring now also in North America and New Zealand.

15. *TINEA*, L.

Head densely rough-haired; ocelli present or absent; tongue short. Antennæ  $\frac{2}{3}$ - $\frac{5}{6}$ , in ♂ ciliated, pubescent, or simple, joints usually closely set, basal joint sometimes with small pecten. Labial palpi moderate, porrected, second joint shortly rough-scaled or smooth, with a few long bristles towards apex, terminal joint moderate, tolerably pointed. Maxillary palpi long, tolerably filiform, folded. Posterior tibiæ clothed with loose hairs. Forewings with vein 1 furcate, 7 to costa, sometimes 6 and 7, or 7 and

8 stalked, 11 from before middle. Hindwings  $\frac{3}{4}$ -1, elongate-ovate or ovate-lanceolate, cilia  $\frac{2}{3}$ -1; sometimes 5 and 6 stalked.

A large and cosmopolitan genus, being one of the earliest developed forms of the family. The larvæ are occasionally but not usually case-bearers; they often feed on dry refuse, and hence some species have become domestic, and several have thus been introduced into Australia by civilization; probably a majority feed on lichens or dead wood, but a few eat leaves, and these are sometimes miners within the substance of the leaf: although normally possessed of sixteen legs, some of the leaf-miners are apodal. These variations in habit make the genus a very interesting one to study.

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|---|---------------------------|
| 1. Thorax dark fuscous with pale dorsal stripe.....                                     | 2.                        |
| Thorax without pale dorsal stripe.....  | 10.                       |
| 2. Sides of crown sharply dark fuscous.....   | 83. <i>erebocosma</i> .   |
| Sides of crown not dark fuscous.....  | 3.                        |
| { 3. Forewings with pale costal streak.....   | 4.                        |
| Forewings without pale costal streak....  | 6.                        |
| 4. Forewings with costal streak interrupted at $\frac{3}{4}$ .....                      | 87. <i>colleta</i> .      |
| Forewings with costal streak not interrupted.....                                       | 5.                        |
| 5. Forewings with upper edge of dark median streak projecting at $\frac{4}{5}$ .. ..... | 88. <i>acrozyga</i> .     |
| Forewings with upper edge of dark median streak straight throughout...                  | 89. <i>lativittella</i> . |
| 6. Forewings with pale suffused submedian streak.....                                   | 86. <i>chaotica</i> .     |
| Forewings without pale submedian streak   | 7.                        |
| 7. Forewings with white costal dots or spots  | 8.                        |
| Forewings without white costal spots. ..  | 84. <i>porphyrota</i> .   |
| 8. Forewings with dorsal streak three-toothed.....                                      | 85. <i>tridectis</i> .    |
| Forewings with dorsal streak with more than three teeth.....                            | 9.                        |

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|--|---------------------------|
| 9. Forewings with dorsal streak six-toothed                    | 90. <i>tetropa</i> .      |
| Forewings with dorsal streak numerously serrate.....           | 91. <i>tryphera</i> .     |
| 10. Forewings yellowish .....                                  | 11.                       |
| Forewings not yellowish .....                                  | 12.                       |
| 11. Forewings with dark costal streak.....                     | 102. <i>nectarea</i> .    |
| Forewings without dark costal streak ..                        | 103. <i>teleochra</i> .   |
| 12. Head wholly white . .....                                  | 13.                       |
| Head not wholly white.....                                     | 18.                       |
| 13. Thorax wholly dark fuscous.....                            | 14.                       |
| Thorax not wholly dark fuscous.....                            | 15.                       |
| 14. Forewings with terminal half white.....                    | 78. <i>tapetiella</i> .   |
| Forewings with terminal half not white                         | 93. <i>muricata</i> .     |
| 15. Forewings with two transverse fasciæ...                    | 74. <i>altilis</i> .      |
| Forewings without fasciæ.....                                  | 16.                       |
| 16. Forewings with groundcolour white ....                     | 17.                       |
| Forewings with groundcolour greyish-ochreous .....             | 95. <i>spodina</i> .      |
| 17. Forewings with strong black line in costal cilia.....      | 97. <i>monophthalma</i> . |
| Forewings without strong black line in costal cilia.. .....    | 100. <i>microspora</i> .  |
| 18. Forewings with strong white dorsal streak .....            | 82. <i>diaphora</i> .     |
| Forewings without paler dorsal streak...                       | 19.                       |
| 19. Head wholly yellowish.....                                 | 20.                       |
| Head not wholly yellowish .....                                | 22.                       |
| 20. Forewings with fasciæ of fine white lines                  | 81. <i>dicharacta</i> .   |
| Forewings without fasciæ.....                                  | 21.                       |
| 21. Head orange ; forewings deep purple...                     | 79. <i>pyrotricha</i> .   |
| Head light yellowish ; forewings fuscous                       | 92. <i>melitocoma</i> .   |
| 22. Antennæ sharply annulated with white and dark fuscous..... | 99. <i>phauloptera</i> .  |
| Antennæ not sharply annulated.....                             | 23.                       |

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|--|-----------------------------|
| 23. Forewings without defined markings....                             | 24.                         |
| Forewings with defined markings.....                                   | 27.                         |
| 24. Forewings with line in costal cilia very strong.....               | 96. <i>epimochla</i> .      |
| Forewings with line in costal cilia moderate or absent.....            | 25.                         |
| 25. Forewings white.....   | 98. <i>vetula</i> .         |
| Forewings dark fuscous.....  | 26.                         |
| 26. Head dark fuscous.....   | 80. <i>amaurodes</i> .      |
| Head ferruginous-fuscous.....  | 94. <i>phoenicopa</i> .     |
| 27. Head wholly fuscous.....   | 28.                         |
| Head not wholly fuscous.....   | 29.                         |
| 28. Forewings fuscous.....   | 77. <i>pellionella</i> .    |
| Forewings greyish-ochreous spotted with fuscous.....                   | 76. <i>fuscipunctella</i> . |
| 29. Forewings with strong dark fuscous blotches from costa.....        | 75. <i>granella</i> .       |
| Forewings without dark fuscous blotches from costa.....                | 30.                         |
| 30. Forewings with strong dark fuscous blotches from inner margin..... | 72. <i>bisepta</i> .        |
| Forewings without dark fuscous blotches from inner margin.....         | 31.                         |
| 31. Forewings with slender fascia and costal spots.....                | 73. <i>monozona</i> .       |
| Forewings with discal dots only.....                                   | 101. <i>aelurodes</i> .     |

72. *Tin. bisepta*, n.sp.

♀. 15 mm. Head white, face mixed with fuscous. Palpi dark fuscous. Antennæ whitish. Thorax white, shoulders with dark fuscous spot. Abdomen grey-whitish. Legs dark fuscous, ringed with whitish, posterior pair whitish. Forewings elongate, costa moderately arched, apex obtuse, hindmargin obliquely rounded; pale greyish-ochreous, more or less wholly suffused with white; markings dark fuscous; a short very oblique mark from costa

near base, furcate on costa; three small costal spots at  $\frac{1}{4}$ ,  $\frac{1}{2}$ , and  $\frac{5}{8}$ , and several scattered costal dots between these; two oblique wedge-shaped blotches from inner margin, first at  $\frac{1}{3}$ , reaching more than half across wing, second at  $\frac{2}{3}$ , not reaching half across wing; a few scattered dark fuscous scales in disc posteriorly, and one or two dots on hindmargin: cilia white. Hindwings pale grey; cilia whitish.

Shoalhaven, New South Wales; one specimen in January.

73. *Tin. monozona*, n.sp.

♂. 11 mm. Head white, face fuscous. Palpi dark fuscous, beneath whitish. Antennæ whitish. Thorax whitish, shoulders and posterior extremity fuscous. Abdomen grey. Legs dark fuscous, apex of joints and posterior pair whitish. Forewings elongate, costa moderately arched, apex obtuse, hindmargin rounded, rather strongly oblique; light fuscous, densely and suffusedly irrorated with white, with scattered dark fuscous scales tending to form strigulae; a slender fuscous fascia from  $\frac{2}{5}$  of costa to middle of inner margin, becoming dark fuscous at extremities; two small dark fuscous spots on costa at  $\frac{3}{5}$  and  $\frac{3}{4}$ , and one on inner margin before anal angle: cilia fuscous-whitish, base spotted with dark fuscous. Hindwings whitish-grey; cilia whitish.

Mount Victoria (3300 feet), New South Wales; in November, one specimen.

74. *Tin. altilis*, n.sp.

♂♀. 7-10 mm. Head white. Palpi dark fuscous, apex of joints white. Antennæ white, ringed with blackish. Thorax white, sprinkled with fuscous, shoulders spotted with fuscous. Abdomen grey. Legs dark fuscous, banded with white. Forewings elongate, costa gently arched, apex roundpointed, hindmargin very obliquely rounded; pale whitish-ochreous, with some fine scattered deep yellow-ochreous scales; markings formed by a deep yellow-ochreous irroration, suffused with blackish on costa; a series of spots along costa, of which one before and one beyond middle give rise to slender angulated fasciae, marked with blackish above and below

middle; two small spots on anterior third of inner margin, one on fold near base, and some scales along hindmargin: cilia pale whitish-ochreous, mixed with yellow-ochreous and some blackish points. Hindwings rather dark grey; cilia grey.

Sydney, New South Wales; in December, five specimens.

75. *Tin. granella*, L.

♂♀. 9-15 mm. Head ochreous-whitish or whitish-ochreous, sides of crown sometimes fuscous. Forewings very elongate, costa gently arched, apex roundpointed, hindmargin extremely obliquely rounded; pale whitish-ochreous, irrorated with fuscous and dark fuscous; six dark fuscous costal spots or blotches, first three fascia-like, oblique, first two reaching submedian fold, second shortly produced posteriorly at apex, third thickest, reaching half across wing, last three forming small spots: cilia ochreous-whitish, broadly barred with fuscous and mixed with dark fuscous. Hindwings grey, darker in ♀; cilia grey.

Sydney, New South Wales; in September, five specimens. A widely distributed European species, artificially introduced; the larva feeds on grain.

76. *Tin. fuscipunctella*, Hw.

(*Tinea fuscipunctella*, Hw., Meyr. Trans. N.Z. Inst. 1887, 100.)

♂♀. 9-16 mm. Head and thorax fuscous. Forewings very elongate, costa gently arched, apex roundpointed, hindmargin extremely obliquely rounded; light greyish-ochreous, irregularly suffusedly spotted with fuscous; a dark fuscous dot or small spot in disc at  $\frac{1}{3}$ , a second obliquely beyond it on fold, and a third in disc at  $\frac{2}{3}$ : cilia pale greyish-ochreous, basal half mixed with fuscous and dark fuscous. Hindwings light grey, yellowish-shining, towards apex darker; cilia whitish-grey.

Brisbane and Toowoomba (2000 feet), Queensland; Newcastle, Bathurst, and Sydney, New South Wales; Fernshaw and Casterton, Victoria; Launceston, Deloraine, Campbelltown, and Georges Bay, Tasmania; Mount Lofty and Port Lincoln, South Australia;



Northampton, West Australia ; from August to March, and in June, generally common in houses. A domestic species, introduced from Europe ; common also in New Zealand and North America. The larva feeds on dry refuse.

77. *Tin. pellationella*, L.

♂♀. 10-15 mm. Head and thorax fuscous. Forewings very elongate, costa gently arched, apex roundpointed, hindmargin extremely obliquely rounded ; fuscous ; an obscure small darker fuscous spot in disc at  $\frac{2}{5}$ , a second beneath it on fold, and a third in disc at  $\frac{3}{5}$  : cilia fuscous. Hindwings grey, with purple and yellowish reflections ; cilia light grey.

Sydney, New South Wales ; Port Lincoln, South Australia ; Carnarvon, West Australia ; in October and November, several specimens. Also introduced from Europe, and occurring now also in New Zealand and North America, but less common than the last ; the larva is a case-bearer, and feeds on cloth, &c., in houses, being sometimes very destructive.

78. *Tin. tapetiella*, L.

(*Tinea tapetiella* (*tapetzella*) L., Meyr. Trans. N.Z. Inst. 1887, 98 ; *T. palaestrica*, Butl., Proc. Zool. Soc. Lond. 1877, 404.)

♂♀. 12-21 mm. Head white. Thorax dark fuscous. Forewings very elongate, costa gently arched, apex roundpointed, hindmargin very obliquely rounded ; ochreous-white ; basal  $\frac{2}{5}$  blackish-fuscous ; a grey spot in disc at  $\frac{2}{3}$ , and some irregularly scattered small grey spots or strigulae posteriorly, especially towards anal angle ; a black dot on inner margin at  $\frac{3}{4}$ , and two before apex : cilia ochreous-white, round apex dark grey. Hindwings grey ; cilia grey-whitish.

Newcastle and Sydney, New South Wales ; Melbourne, Victoria ; Hobart, Tasmania ; in October and from January to March, rather common in houses. A European species, now introduced also into New Zealand, North America, and probably elsewhere ; the larva feeds especially on furs, skins, &c.

79. *Tin. pyrotricha*, n.sp.

♂♀. 13-15 mm. Head deep orange. Palpi, antennæ, thorax, abdomen, and legs dark fuscous; legs with apex of joints whitish, hairs of posterior tibiæ whitish-grey. Forewings very elongate, narrow, costa gently arched, apex tolerably acute, hindmargin extremely obliquely rounded; very deep purple, with blue and coppery reflections; cilia rather dark fuscous. Hindwings rather dark purplish-fuscous; cilia rather dark fuscous.

Melbourne, Victoria; two specimens received from Mr. G. H. Raynor.

80. *Tin. amaurodes*, n.sp.

♂. 14 mm. Head dark fuscous, with some whitish hairs. Palpi whitish, terminal joint fuscous except apex. Antennæ, thorax, abdomen, and legs dark fuscous; posterior tibiæ and apex of tarsal joints fuscous-whitish. Forewings elongate, costa gently arched, apex roundpointed, hindmargin very obliquely rounded; fuscous, coarsely irrorated with dark fuscous: cilia fuscous, with a cloudy darker line. Hindwings and cilia rather dark fuscous, with purple and yellowish reflections.

Adelaide, South Australia; one specimen, taken in October, received from Mr. O. B. Lower.

81. *Tin. dicharacta*, n.sp.

♂. 6 mm. Head and palpi orange-ochreous. Antennæ, thorax, abdomen, and legs dark fuscous, hairs of posterior tibiæ whitish. Forewings elongate, costa gently arched, apex roundpointed, hindmargin very obliquely rounded; dark fuscous, with bright coppery-golden and purple reflections; four fasciæ composed of fine white transverse lines; first of two lines, near base, obsolete towards costa; second of three or four lines, from  $\frac{2}{5}$  of costa to middle of inner margin, curved; third of two lines, from  $\frac{2}{5}$  of costa to anal angle, widely interrupted in disc; fourth of two lines, from  $\frac{1}{4}$  of costa to middle of hindmargin, widely interrupted: cilia dark fuscous, mixed with white round apex. Hindwings and cilia rather dark fuscous, with purplish and golden reflections.

Sydney, New South Wales; one specimen in November.

82. *Tin. diaphora*, n.sp.

♂♀. 13-15 mm. Head light fuscous, face and palpi blackish. Antennæ whitish-fuscous. Thorax white, shoulders and anterior margin blackish-fuscous. Abdomen ochreous-grey. Legs dark fuscous, posterior pair suffused with whitish. Forewings very elongate, costa gently arched, apex roundpointed, hindmargin very obliquely rounded; purple-blackish; a strong irregular-edged white streak from base along inner and hindmargin to apex, sometimes mixed with whitish-ochreous posteriorly; a fine blackish hindmarginal line: cilia fuscous irrorated with whitish, basal third suffusedly barred with white and dark fuscous. Hindwings light grey; cilia grey-whitish.

Sydney, New South Wales; Melbourne, Victoria; from October to January, not uncommon on *Eucalyptus*-trunks. Larva 16-legged, elongate, cylindrical, with scattered whitish hairs; dirty whitish; head and second segment dark fuscous; very active; feeds on dead wood of *Eucalyptus*, between loose pieces, spinning a good deal of web, mixed with refuse, in August and September.

83. *Tin. erebocosma*, n.sp.

♂♀. 10-12 mm. Head white, sides of crown sharply dark fuscous. Palpi dark fuscous, beneath whitish. Antennæ dark fuscous. Thorax dark fuscous, with white dorsal stripe. Abdomen grey. Legs dark fuscous, apex of joints and posterior tibiæ whitish. Forewings very elongate, costa gently arched, apex roundpointed, hindmargin very obliquely rounded; dark purplish-fuscous, irrorated with blackish; a rather narrow white streak along inner margin from base to anal angle, its upper edge four times waved; two or three whitish dots on costa towards apex; two or three small white spots on hindmargin, sometimes confluent to form an irregular streak: cilia fuscous irrorated with whitish, on costa dark fuscous spotted with whitish. Hindwings grey; cilia grey-whitish, base greyer.

Sydney, New South Wales; in October and November, seven specimens.

84. *Tin. porphyrota*, n.sp.

♀. 10-12 mm. Head light ochreous-yellowish. Palpi and antennæ dark fuscous. Thorax dark fuscous, with a whitish dorsal stripe. Abdomen dark grey. Legs dark fuscous, hairs of posterior tibiæ whitish. Forewings very elongate, costa gently arched, apex acute, slightly produced, hindmargin extremely obliquely rounded; deep fuscous-purple, irrorated with blackish-grey; a moderate whitish-ochreous streak along inner margin from near base to anal angle, extremities attenuated: cilia dark fuscous-purplish mixed with blackish-grey, beneath anal angle whitish-ochreous. Hindwings grey, with golden reflections; cilia whitish-grey.

Deloraine, Tasmania; in November, five specimens.

85. *Tin. tridectis*, n.sp.

♀. 12 mm. Head ochreous-yellowish. Palpi and antennæ rather dark fuscous. Thorax dark fuscous, with whitish-ochreous dorsal stripe. Abdomen pale fuscous. Legs dark fuscous, apex of joints whitish-ochreous. Forewings very elongate, costa gently arched, apex roundpointed, hindmargin very obliquely rounded; purplish-fuscous, suffusedly irrorated with dark fuscous; an ochreous-whitish dot above middle at  $\frac{1}{3}$ ; an ochreous-whitish streak along inner margin from near base to anal angle, attenuated posteriorly, its upper edge forming three subtriangular projections; a moderate subtriangular ochreous-whitish spot on costa at  $\frac{3}{4}$ ; cilia fuscous mixed with dark fuscous. Hindwings rather light fuscous, slightly brassy-tinged; cilia light fuscous.

Melbourne, Victoria; one specimen received from Mr. G. H. Raynor.

86. *Tin. chaotica*, n.sp.

♂♀. 11-14 mm. Head whitish-ochreous. Palpi dark fuscous, apex whitish-ochreous. Antennæ fuscous. Thorax dark fuscous, with whitish-ochreous dorsal stripe. Abdomen dark grey. Legs dark fuscous, apex of joints and hairs of posterior tibiæ whitish-ochreous. Forewings very elongate, costa gently arched, apex

acute, hindmargin extremely obliquely rounded ; fuscous, irrorated with dark fuscous ; generally a strong ochreous-whitish longitudinal submedian streak from base to hindmargin above anal angle, thence continued as a suffused band along hindmargin to costa, but this is sometimes obscure or partially absent or mixed with groundcolour ; two blackish-fuscous spots on upper edge of this before and beyond middle, and two others on lower edge, sometimes extended as oblique marks to inner margin, sometimes placed in a whitish subdorsal suffused streak : cilia ochreous-whitish, with dark fuscous suffused blotches at apex and above anal angle, and a blackish line near base. Hindwings grey ; cilia whitish-grey.

Fernshaw, Victoria ; Deloraine and Mount Wellington, Tasmania ; from November to January, common. This is an exceedingly variable insect, and usually very obscure in appearance, though hardly likely to be confused with any other ; the allied species have their markings much more clearly defined.

87. *Tin. colleta*, n.sp.

♂. 10-11 mm. Head pale whitish-yellow. Palpi dark fuscous. Antennæ grey. Thorax dark fuscous, with whitish-yellowish dorsal stripe. Abdomen grey. Legs dark fuscous, posterior pair ochreous-whitish. Forewings very elongate, costa gently arched, apex acute, hindmargin extremely obliquely rounded ; dark purplish-fuscous mixed with blackish ; markings pale whitish-yellowish ; a broad streak along costa from near base to  $\frac{3}{4}$ , attenuated to extremities ; a moderate streak along inner margin from base to anal angle ; a blotch from costa immediately before hindmargin, not reaching either of the longitudinal streaks : cilia light fuscous mixed with darker, at apex dark fuscous, on costal blotch whitish-yellowish. Hindwings grey ; cilia whitish-grey.

Sydney, New South Wales ; in September and October, two specimens.

88. *Tin. acrozyga*, n.sp.

♂. 9-11 mm. Head whitish-yellowish, face sometimes ferruginous-tinged. Palpi and antennæ dark fuscous. Thorax dark

fuscous, with yellow-whitish dorsal stripe. Abdomen grey. Legs dark fuscous, posterior pair ochreous-whitish. Forewings very elongate, costa gently arched, apex acute, hindmargin extremely obliquely rounded; white suffusedly mixed with whitish-yellowish, especially towards margins; a broad straight dark fuscous median longitudinal streak from base to hindmargin, upper edge with a triangular projection at  $\frac{1}{5}$  not reaching costa: cilia fuscous mixed with blackish, on costa and anal angle yellow-whitish. Hindwings light grey; cilia grey-whitish.

Sydney, New South Wales; Geraldton and Perth, West Australia; in September and October, six specimens. Larva 16-legged, abdominal legs very rudimentary; elongate, slender, somewhat flattened, tapering at both ends, segments rather deeply incised; ochreous-yellow; dorsal vessel dull greenish; head very small, black; second segment suffused with blackish; anal segment minute, black: mines a flat discoloured blotch occupying apical portion of leaves of *Hakea dactyloides* (*Proteaceae*), in August; pupa free, within the mine.

89. *Tin. lativittella*, Walk.

(*Elachista lativittella*, Walk. 898.)

♂♀. 9-12 mm. Head pale whitish-yellowish, face often ferruginous-tinged. Palpi and antennae dark fuscous. Thorax dark fuscous, with yellow-whitish dorsal stripe. Abdomen grey. Legs dark fuscous, posterior pair ochreous-whitish. Forewings very elongate, costa gently arched, apex acute, hindmargin extremely obliquely rounded; white, suffused with whitish-ochreous towards margins; a broad straight dark purple-fuscous median longitudinal streak from base to hindmargin, upper edge straight throughout: cilia fuscous mixed with blackish, on costa and anal angle ochreous-whitish. Hindwings pale grey; cilia grey-whitish.

Sydney and Blackheath (3500 feet), New South Wales; Perth, West Australia; from August to November, and in February, rather common. Larva 16-legged, elongate, cylindrical, slightly tapering at both ends; dull yellowish-grey; head reddish-ochreous,

second and anal segments rather lighter ochreous; feeds on *Isopogon anemonifolius* (*Proteaceae*), uniting four or five needles into a firm tube, and eating away upper portion, in September; pupa free within the tube.

90. *Tin. tetropa*, n.sp.

♂. 14 mm. Head and palpi ochreous-whitish. Antennæ dark fuscous. Thorax dark fuscous, with ochreous-whitish dorsal stripe. Abdomen grey. Legs dark fuscous, apex of joints and posterior pair whitish. Forewings very elongate, costa gently arched, apex acute, hindmargin extremely obliquely rounded; dark fuscous; six white spots on costa, fourth and fifth (at  $\frac{1}{2}$  and  $\frac{3}{4}$ ) large, others small; a whitish-ochreous streak along inner margin from base to anal angle, deeper ochreous towards upper edge, upper edge with six short irregular projections; a white dot in disc near apex, and another on hindmargin beneath apex: cilia pale whitish-fuscous mixed with dark fuscous, on costa spotted obscurely with whitish. Hindwings grey; cilia pale grey.

Mount Lofty, South Australia; one specimen received from Mr. O. B. Lower.

91. *Tin. tryphera*, n.sp.

♂. 13-17 mm. Head pale whitish-yellowish. Palpi whitish, beneath dark fuscous. Antennæ dark fuscous. Thorax dark fuscous, with yellow-whitish dorsal stripe. Abdomen grey. Legs dark fuscous, apex of joints and posterior pair whitish. Forewings very elongate, costa gently arched, apex tolerably acute, hindmargin extremely obliquely rounded; rather dark fuscous; two white dots on costa beyond middle, and sometimes three or four others towards apex; a whitish-ochreous yellowish-tinged streak along inner margin from base to anal angle, upper edge with numerous irregular serrations, margined by a blackish suffusion: cilia rather dark fuscous, on anal angle whitish, on costa dotted with whitish. Hindwings pale grey; cilia whitish-grey.

Sydney, Blackheath (3500 feet), and Mittagong, New South Wales; in August, October, and March, six specimens. Larva 16-legged, somewhat flattened, tapering at both ends; dull blackish,

tinged with green, darkest on dorsal and spiracular lines; spots minute, pale; head small, ochreous-brown, on crown blackish; second and anal segments black: feeds between joined leaves of *Persoonia salicina* (*Proteaceae*), in July; pupa in a dense white cocoon.

92. *Tin. melitocoma*, n.sp.

♂. 10 mm. Head ochreous-yellowish. Antennæ dark fuscous. Thorax fuscous. Abdomen grey. Legs dark fuscous, apex of joints and posterior pair whitish. Forewings very elongate, costa gently arched, apex acute, hindmargin extremely obliquely rounded; ochreous-brown, irrorated with dark fuscous: cilia light ochreous-brownish, mixed with dark fuscous. Hindwings and cilia grey.

Mittagong (2000 feet), New South Wales; one specimen in March.

93. *Tin. muricata*, n.sp.

♂. 6 mm. Head and palpi whitish. Antennæ, thorax, abdomen, and legs dark fuscous, posterior tibiæ and apex of tarsal joints whitish. Forewings elongate, costa gently arched, apex acute, hindmargin extremely obliquely rounded; deep fuscous-purple, with a few scattered pale fuscous scales: cilia fuscous mixed with dark fuscous. Hindwings fuscous, tinged with golden-purplish; cilia light fuscous.

Sydney, New South Wales; one specimen in November.

94. *Tin. phoenicopa*, n.sp.

♂♀. 6-7 mm. Head ferruginous, with some whitish-ochreous hairs. Palpi whitish. Antennæ, thorax, abdomen, and legs dark fuscous, posterior tibiæ and apex of tarsal joints whitish. Forewings elongate, costa gently arched, apex acute, hindmargin extremely obliquely rounded; purple-fuscous, irrorated with dark fuscous, sometimes with scattered ochreous-whitish scales, especially posteriorly: cilia purplish-fuscous mixed with whitish, with a strong black line at  $\frac{1}{3}$ . Hindwings rather dark purplish-grey; cilia grey.



Sydney, New South Wales; Wirrabara, South Australia; in October, locally common.

95. *Tin. spodina*, n.sp.

♂. 8-9 mm. Head, palpi, and thorax white. Antennæ whitish. Abdomen grey. Legs dark grey, apex of joints and posterior pair whitish. Forewings elongate, costa gently arched, apex acute, hindmargin extremely obliquely rounded; pale greyish-ochreous or whitish-fuscous, irrorated with fuscous or dark fuscous: cilia whitish-fuscous, with complete dark fuscous lines at  $\frac{1}{3}$  and tips, base mixed with dark fuscous points. Hindwings rather dark grey, with strong purple and brassy reflections; cilia light grey.

Sydney, New South Wales; in September and October, five specimens. Larva undescribed, mining in leaves of *Persoonia lanceolata* (*Proteaceae*), in September; when full-fed it cuts out a narrow flattened-cylindrical case to pupate in.

96. *Tin. epimochla*, n.sp.

♂. 9 mm. Head fuscous, mixed with whitish posteriorly. Palpi and antennæ whitish. Thorax fuscous, sprinkled with whitish. Abdomen and legs dark fuscous, apex of tarsal joints and hairs of posterior tibiae whitish. Forewings elongate, costa gently arched, apex acute, hindmargin extremely obliquely rounded; dark purplish-fuscous, finely and closely irrorated with whitish: cilia whitish-fuscous, with antemedian, subapical, and apical dark fuscous lines, antemedian line in costal cilia very strong and black. Hindwings dark purplish-fuscous; cilia dark grey.

Sydney, New South Wales; in September, one specimen.

97. *Tin. monophthalma*, n.sp.

♂♀. 8-14 mm. Head, palpi, antennæ, and thorax white. Abdomen whitish-grey. Legs dark fuscous, apex of joints and posterior pair whitish. Forewings elongate, costa gently arched, apex roundpointed, hindmargin very obliquely rounded; white finely irrorated with dark grey posteriorly; sometimes the irro-



tion extends throughout the wing, but is always more dense posteriorly; the irroration is rarely ochreous-fuscous; sometimes a small round spot of darker suffusion in disc at  $\frac{3}{4}$ : cilia white, finely irrorated with dark fuscous, with antemedian, subapical, and apical dark lines, antemedian line in costal cilia very strong and black. Hindwings rather dark grey, with purple and brassy reflections; cilia whitish-grey, darker towards base.

Brisbane, Queensland; Sydney, Bathurst, and Mount Kosciusko (4300 feet), New South Wales; Deloraine, Tasmania; Woodside, South Australia; Albany, West Australia; from September to March, very common.

98. *Tin. vetula*, n.sp.

♂♀. 10-13 mm. Head white, forehead more or less suffused with ochreous-yellow. Palpi, antennæ, thorax, abdomen, and legs white; anterior tibiæ dark fuscous. Forewings very elongate, costa gently arched, apex roundpointed, hindmargin very obliquely rounded; white, finely and sometimes very slightly sprinkled with pale ochreous-yellow: cilia white. Hindwings rather dark grey; cilia whitish-grey, suffused with white towards apex and anal angle.

Sydney, New South Wales; in November and December, common. Larva apodal, elongate, cylindrical, segments deeply incised, last two much attenuated, head very small, semicircular; dull deep yellow; mouth blackish: mines an elongate pearshaped blotch in leaves of *Banksia integrifolia* (*Proteaceae*), in July, both surfaces thickened and fleshy as in a gall; often several in one leaf: pupa within the mine.

99. *Tin. phauloptera*, n.sp.

♂♀. 8-9 mm. Head white, forehead fuscous. Palpi white. Antennæ white, annulated with dark fuscous. Thorax white, sprinkled with dark fuscous. Abdomen whitish-grey. Legs dark fuscous, middle pair mixed with white, posterior pair white. Forewings elongate, costa gently arched, apex roundpointed, hindmargin very obliquely rounded; white, rather thinly irrorated

with dark fuscous or ochreous-brown; generally a suffused ochreous-brown spot on inner margin at  $\frac{3}{4}$ , and a more or less ill-defined cloudy fascia from  $\frac{2}{3}$  of costa to anal angle, but these are sometimes obsolete: cilia white, irrorated with dark fuscous, basal third white barred with ochreous-brown, limited by a line of black points. Hindwings light grey; cilia whitish-grey.

Sydney, New South Wales; Deloraine, Tasmania; from September to November, common. Larva apodal, head and second segment enormously large, thence suddenly narrower and attenuated posteriorly throughout, segments deeply incised, head semi-elliptical; whitish, dorsal vessel conspicuously green; head and dorsal area of second segment black: mines a broad gradually dilated gallery in leaves of *Banksia serrata* (*Proteaceae*), usually along margin, in July; when full-fed, cuts out an oval case from the leaf to pupate in, and lets itself down.

100. *Tin. microspora*, n.sp.

♀. 9 mm. Head and palpi white. Antennæ white, spotted with dark fuscous. Thorax white. Abdomen ochreous-whitish. Legs white, anterior pair dark fuscous. Forewings elongate, costa gently arched, apex acute, hindmargin extremely obliquely rounded; white; a few scattered blackish scales, especially towards anal angle: cilia white, with a very few blackish points arranged in a median line, and a small spot at anal angle. Hindwings grey-whitish; cilia white.

Perth, West Australia; in October, one specimen.

101. *Tin. aelurodes*, n.sp.

♂♀. 8-10 mm. Head white or ochreous-white, forehead fuscous or pale ochreous. Palpi and antennæ white. Thorax ochreous-white. Abdomen grey. Legs dark fuscous, apex of joints and posterior pair whitish. Forewings very elongate, costa gently arched, apex tolerably acute, hindmargin very obliquely rounded; whitish-ochreous, irrorated with rather dark fuscous; two blackish-fuscous dots obliquely placed and sometimes confluent in middle of disc, and a third in disc at  $\frac{3}{4}$ : cilia ochreous-whitish irrorated

with dark fuscous, with a strong black line at  $\frac{1}{3}$ . Hindwings grey, with brassy and purple reflections; cilia light grey, towards tips more whitish.

Albany, West Australia; in December, five specimens.

102. *Tin. nectarea*, n.sp.

♂♀. 8-11 mm. Head light ochreous-yellow, face ferruginous. Palpi white. Antennæ dark fuscous. Thorax pale yellow. Abdomen dark grey. Legs dark fuscous, apex of joints and posterior pair ochreous-whitish. Forewings elongate, costa gently arched, apex roundpointed, hindmargin very obliquely rounded; light ochreous-yellow; markings dark coppery-fuscous; a streak along costa from base to beyond middle; a large apical patch, its anterior edge straight, extending from  $\frac{3}{4}$  of costa to inner margin before anal angle: cilia coppery-fuscous, with three dark fuscous lines. Hindwings rather dark fuscous, with coppery or brassy reflections; cilia grey, more whitish towards tips.

Brisbane, Queensland; Sydney and Bathurst, New South Wales; Melbourne, Victoria; Georges Bay, Tasmania; Albany, West Australia; from September to March, common. I have bred this species from flattened-oval irregular-edged cases, found in plenty on stems of *Acacia decurrens*, in September, but these were probably pupation-cases only, as in some other species; I failed to find the larvæ feeding, and they may have come from *Eucalyptus* trees near.

103. *Tin. teleochra*, n.sp.

♂♀. 12 mm. Head whitish-ochreous, yellowish-tinged. Palpi whitish, externally fuscous. Antennæ grey, in ♀ ringed with whitish. Thorax pale ochreous-yellowish, shoulders with a dark fuscous spot. Abdomen grey-whitish. Legs dark fuscous, apex of joints and posterior pair whitish. Forewings elongate, costa gently arched, apex tolerably acute, hindmargin very obliquely rounded; whitish-ochreous, somewhat mixed with pale shining ochreous; a few scattered dark fuscous scales, tending to form

small dots: cilia whitish-ochreous, terminal half on hindmargin suffused with rather dark fuscous. Hindwings whitish-grey; cilia grey-whitish.

Sydney, New South Wales; in August, two specimens.

# 16. CHRYSORYCTIS, Meyr.

Head densely rough-haired; ocelli absent; tongue short. Antennæ almost or quite 1, in ♂ shortly pubescent or simple, joints closely set, basal joint without pecten. Labial palpi moderate, porrected, second joint shortly rough-scaled, with several bristles towards apex, terminal joint short, rough-scaled beneath, tolerably pointed. Maxillary palpi long, tolerably filiform, folded. Posterior tibiæ clothed with long hairs. Forewings with vein 1 furcate, 7 to costa, 11 from before middle. Hindwings  $\frac{3}{4}$ -1, elongate-ovate or ovate-lanceolate, cilia 1; veins tolerably parallel.

Differs from *Tinea* essentially only by the longer antennæ, which are almost or quite as long as the forewings, whilst in *Tinea* they are at least one-sixth shorter; but the difference is sufficiently well-marked, and the genus is a natural and easily recognisable one, all the species being yellow with similar dark markings. The genus is confined to the Australian region, and is doubtless an endemic development of *Tinea*.

- |  |                        |
|--|------------------------|
| 1. Thorax whitish-ochreous, anteriorly suffused with fuscous.....          | 115. <i>ochracea</i> . |
| Thorax dark purple-fuscous.....  | 2.                     |
| 2. Forewings with broad dark basal fascia...                               | 109. <i>purella</i> .  |
| Forewings with only extreme base dark...                                   | 3.                     |
| 3. Forewings with dark hindmarginal fascia                                 | 4                      |
| Forewings without dark hindmarginal fascia.....                            | 11.                    |
| 4. Forewings with hindmarginal fascia containing pale markings.....        | 5.                     |
| Forewings with hindmarginal fascia not containing pale markings.....,..... | 8.                     |

5. Forewings with fascia containing a yellow spot..... 6.  
 Forewings with fascia containing a curved whitish fascia..... 104. *xystidophora*.  
 6. Included yellow spot costal..... 107. *eurybaphes*.  
 Included yellow spot hindmarginal..... 7.  
 7. Forewings with costal dark streak extending to  $\frac{1}{5}$ ..... 106. *tyrannica*.  
 Forewings with costal dark streak extending to  $\frac{1}{3}$ ..... 105. *fraudulenta*.  
 8. Forewings with erect mark from anal angle 114. *balanosema*.  
 Forewings without erect anal mark ..... 9.  
 9. Forewings with anterior edge of fascia triangularly projecting..... 108. *irruptella*.  
 Forewings with anterior edge of fascia not triangularly projecting ..... 10.  
 10. Forewings with fascia broad, extending to  $\frac{3}{4}$  of costa.... 110. *hypocritica*.  
 Forewings with fascia narrow, extending to  $\frac{7}{8}$  of costa or less..... 111. *talantias*.  
 11. Abdomen grey..... 113. *meliphanes*.  
 Abdomen light yellowish-ochreous ..... 112. *ochranthes*.

104. *Chrys. xystidophora*, n.sp.

♂♀. 15-19 mm. Head pale ochreous-yellowish. Palpi and antennæ dark fuscous. Thorax rather dark coppery-fuscous. Abdomen light brownish-ochreous. Legs dark fuscous, hairs of posterior tibiæ brownish-ochreous. Forewings elongate, costa gently arched, apex tolerably acute, hindmargin very obliquely rounded; bright clear yellow; extreme base dark coppery-fuscous, shortly produced along costa; a rather dark purple-fuscous apical patch, anterior edge limited by a nearly straight darker line from  $\frac{2}{3}$  of costa to  $\frac{3}{4}$  of inner margin; within this patch is a cloudy whitish strongly inwards-curved fascia from costa before apex to hindmargin above anal angle: cilia whitish-fuscous, with several

dark fuscous lines, basal third sometimes suffused with white so as to form with fascia of wing an annular patch. Hindwings rather dark purplish-bronzy-fuscous; cilia fuscous.

Duaringa and Rosewood, Queensland; Bathurst and Sydney, New South Wales; in September, November, and March, not uncommon.

105. *Chrys. fraudulenta*, Ros.

(*Tinea fraudulens*, (form. *prav.*,) Rosenst., Ann. Mag. Nat. Hist. 1885, 437, pl. XI., 12.)

♀. 14-15 mm. Head light ochreous-yellow. Palpi whitish. Antennæ pale fuscous. Thorax rather dark coppery-fuscous. Abdomen greyish-ochreous. Legs dark fuscous, posterior tibiæ greyish-ochreous. Forewings elongate, costa moderately arched, apex roundpointed, hindmargin very obliquely rounded; bright clear yellow; a narrow dark coppery-fuscous streak along basal third of costa, extended at base to inner margin; a deep purple apical patch, mixed and margined with dark fuscous, anterior edge extending from  $\frac{2}{3}$  of costa to  $\frac{3}{4}$  of inner margin, hardly curved, containing a large oval clear yellow spot resting on hindmargin beneath apex: cilia fuscous-whitish irrorated with dark fuscous. Hindwings rather dark purplish-bronzy-fuscous; cilia light fuscous.

Sydney, New South Wales; Melbourne, Victoria; Mount Graham, South Australia; Carnarvon, West Australia; in October, December, and January, not uncommon. I have altered the inadmissible form of Rosenstock's specific name.

106. *Chrys. tyrannica*, n.sp.

♂♀. 13-16 mm. Head light ochreous-yellow. Palpi dark fuscous. Antennæ whitish, base dark fuscous. Thorax rather dark coppery-fuscous. Abdomen pale ochreous. Legs dark fuscous, posterior tibiæ ochreous-whitish. Forewings elongate, costa moderately arched, apex roundpointed, hindmargin very obliquely rounded; bright clear yellow; a rather dark coppery-fuscous streak along basal fifth of costa, extended at base to inner

margin; a deep purple apical patch, mixed and margined with dark fuscous, anterior edge extending from  $\frac{2}{3}$  of costa to  $\frac{3}{4}$  of inner margin, almost straight, containing a small suffused pale yellow spot near hindmargin beneath apex: cilia fuscous-whitish irrorated with dark fuscous. Hindwings rather dark bronzy-fuscous; cilia light fuscous.

Duaringa, Queensland; in October and February, three specimens received from Mr. G. Barnard.

107. *Chrys. eurybaphes*, n.sp.

♂♀. 18-22 mm. Head light ochreous-yellow. Palpi and antennæ dark fuscous. Thorax dark purplish-fuscous. Abdomen and legs dark fuscous, hairs of posterior tibiæ brownish-ochreous. Forewings very elongate, costa gently arched, apex roundpointed, hindmargin very obliquely rounded; light golden-yellow; markings dark purple-fuscous; a streak along costa from base to apical patch, extended at base to inner margin; a large apical patch, anterior edge extending from beyond middle of costa to  $\frac{2}{3}$  of inner margin, straight, containing a sometimes cloudy yellow spot on costa at  $\frac{4}{5}$ : cilia dark purple-fuscous. Hindwings rather dark bronzy-fuscous; cilia fuscous.

Blackheath (3500 feet), New South Wales; Port Lincoln, South Australia; in October and November, six specimens.

108. *Chrys. irruptella*, Walk.

(*Oecophora irruptella*, Walk. 686.)

♂♀. 17-22 mm. Head light ochreous-yellow. Palpi dark fuscous. Antennæ whitish, towards base dark fuscous. Thorax dark purplish-fuscous. Abdomen light ochreous-brownish. Legs dark fuscous, hairs of posterior tibiæ pale greyish-ochreous. Forewings very elongate, costa gently arched, apex roundpointed, hindmargin very obliquely rounded; pale golden-yellow; markings dark purple-fuscous; a streak along costa from base to  $\frac{2}{3}$ , extended at base to inner margin; an apical patch, its anterior edge extending from  $\frac{5}{6}$  of costa to inner margin before anal angle, lower half



straight, upper half emarginate so as to form a triangular median projection: cilia dark purple-fuscos. Hindwings rather dark bronzy-fuscos; cilia fuscous.

Melbourne, Victoria; Launceston, Deloraine, and Hobart, Tasmania; from October to December, rather common.

109. *Chrys. purella*, Walk.

(*Incurvaria purella*, Walk. 491.)

♂♀. 11-14 mm. Head light ochreous-yellow. Palpi and antennæ dark fuscous. Thorax dark purple-fuscos. Abdomen pale ochreous. Legs dark fuscous, hairs of posterior tibiæ whitish-ochreous. Forewings very elongate, costa gently arched, apex acute, hindmargin extremely obliquely rounded; light golden-yellow; markings dark purple-fuscos; a rather broad basal fascia, produced as a narrow streak on costa to about middle; an apical patch, anterior edge extending from  $\frac{2}{3}$  or  $\frac{3}{4}$  of costa to  $\frac{3}{4}$  or  $\frac{1}{2}$  of inner margin, straight: cilia dark purplish-fuscos. Hindwings ochreous-fuscos; cilia light brownish-ochreous.

Duaringa, Queensland; Bathurst and Sydney, New South Wales; Quorn and Mount Lofty, South Australia; in October and March, not uncommon.

110. *Chrys. hypocritica*, n.sp.

♂♀. 14-20 mm. Head light ochreous-yellow. Palpi dark fuscous. Antennæ whitish. Thorax dark purplish-fuscos. Abdomen light yellowish-ochreous (in one specimen grey). Legs dark fuscous, hairs of posterior tibiæ whitish-ochreous. Forewings very elongate, costa gently arched, apex roundpointed, hindmargin very obliquely rounded; light golden-yellow; markings dark purple-fuscos; a narrow suffused streak along costa from base to about middle, extended at base to inner margin; an apical patch, anterior edge extending from  $\frac{3}{4}$  of costa to inner margin before anal angle, curved near costa: cilia dark purple-fuscos. Hindwings rather dark purplish-bronzy-fuscos; cilia fuscous.

Blackheath (3500 feet) and Bathurst (2300 feet), New South Wales; Mount Lofty and Port Lincoln, South Australia; in November and January, six specimens.

111. *Chrys. talantias*, n.sp.

♂♀. 17-18 mm. Head light ochreous-yellow. Palpi and antennæ dark fuscous. Thorax rather dark purplish-fuscous, posterior extremity whitish-ochreous. Abdomen pale ochreous. Legs dark fuscous, hairs of posterior tibiæ whitish-ochreous. Forewings elongate, costa gently arched, apex acute, hindmargin extremely obliquely rounded; pale ochreous-yellow; markings rather dark purple-fuscous; a narrow cloudy streak along costa from base to near middle, extended at base to inner margin; a narrow hindmarginal fascia, anterior edge running from  $\frac{7}{8}$  or  $\frac{9}{10}$  of costa to anal angle, straight: cilia fuscous. Hindwings rather dark bronzy-fuscous; cilia light ochreous-fuscous.

Duaringa, Queensland; Geraldton, West Australia; in November, four specimens.

112. *Chrys. ochranthes*, n.sp.

♂♀. 15-22 mm. Head pale ochreous-yellow. Palpi and antennæ dark fuscous. Thorax dark purple-fuscous. Abdomen light yellow-ochreous. Legs dark fuscous, hairs of posterior tibiæ pale ochreous. Forewings very elongate, costa moderately arched, apex acute, hindmargin very obliquely rounded; whitish-ochreous, yellowish tinged; a narrow dark purplish-fuscous streak along costa from base to near middle, extended at base to inner margin; sometimes a few scattered dark fuscous scales near apex and hindmargin: cilia dark purplish-fuscous. Hindwings dark bronzy-fuscous; cilia fuscous.

Trafalgar, Victoria; Launceston, Deloraine, Campbelltown, Georges Bay, and Hobart, Tasmania; Mount Lofty, South Australia; from November to January, common.

113. *Chrys. meliphanes*, n.sp.

♂♀. 13-17 mm. Head pale whitish-ochreous. Palpi and antennæ fuscous. Thorax dark purplish-fuscous. Abdomen grey. Legs dark fuscous, hairs of posterior tibiæ whitish-ochreous. Forewings elongate, costa gently arched, apex very acute, hindmargin extremely obliquely rounded; pale whitish-yellow; a dark fuscous streak along costa from base to  $\frac{2}{3}$ ; cilia fuscous, mixed with dark purple-fuscous towards base. Hindwings rather dark bronzy-fuscous; cilia fuscous.

Quorn, Wirrabara, and Mount Lofty, South Australia; in October and November, common.

114. *Chrys. balanosema*, n.sp.

♂♀. 14-15 mm. Head pale ochreous-yellow. Palpi dark fuscous. Antennæ whitish-fuscous. Thorax purplish-fuscous, posterior extremity whitish-ochreous. Abdomen pale greyish-ochreous. Legs dark fuscous, posterior pair whitish-ochreous. Forewings elongate, costa moderately arched, apex roundpointed, hindmargin extremely obliquely rounded; whitish-ochreous; a narrow cloudy dark fuscous streak along costa from base to about middle, extended at base to inner margin; a narrow very indistinct fuscous suffusion along hindmargin, connected with a cloudy fuscous erect mark from anal angle, reaching more than half across wing; cilia ochreous-whitish, densely irrorated with dark purple-fuscous. Hindwings rather dark bronzy-fuscous; cilia fuscous.

Wollongong, New South Wales; in October, two specimens.

115. *Chrys. ochracea*, n.sp.

♂♀. 12-15 mm. Head light ochreous-yellowish. Palpi dark fuscous. Antennæ whitish-ochreous. Thorax whitish-ochreous, anteriorly suffused with fuscous. Abdomen whitish-ochreous. Legs dark fuscous, posterior pair whitish-ochreous. Forewings very elongate, costa moderately arched, apex acute, hindmargin very obliquely rounded; whitish-ochreous; costal edge dark fuscous

at base: cilia whitish-ochreous, terminal half irrorated with fuscous. Hindwings rather dark bronzy-fuscous; cilia whitish-fuscous.

Sydney, New South Wales; from October to January, and in March, seven specimens.

#### 17. *TINEOLA*, H-S.

Head densely rough-haired; ocelli absent; tongue short. Antennæ  $\frac{5}{8}$ , in ♂ pubescent, joints closely set, basal joint with pecten. Labial palpi moderate, porrected, second joint loosely scaled, with several long bristles towards apex, terminal joint moderate, tolerably pointed. Maxillary palpi very short. Posterior tibiæ clothed with loose hairs. Forewings with vein 1 furcate, 7 to costa, 11 from before middle. Hindwings 1, elongate-ovate, cilia  $\frac{2}{3}$ -1; veins tolerably parallel.

This genus, closely allied to *Tinea* and only differing from it by the undeveloped maxillary palpi, is represented only by one introduced species.

#### 116. *Tin. biselliella*, Hüm.

(*Tineola biselliella*, Hüm., Meyr. Trans. N.Z. Inst. 1887, 101.)

♂♀. 11-15 mm. Head pale yellow-ochreous, sometimes more or less ferruginous-tinged. Thorax whitish-ochreous. Forewings elongate, narrow, costa gently arched, apex acute, hindmargin extremely obliquely rounded; whitish-ochreous: cilia whitish-ochreous. Hindwings pale whitish-ochreous-grey; cilia whitish-ochreous.

Glen Innes (3500 feet) and Sydney, New South Wales; Hobart, Tasmania; Port Lincoln, South Australia; Geraldton and Perth, West Australia; from October to February and in June, rather common. Introduced from Europe, and also occurring in New Zealand and North America. The larva feeds on hair, wool, &c., especially in the lining of furniture.

#### 18. *MACRAEOLA*, n.g.

Head densely rough-haired; ocelli absent; tongue short. Antennæ over 1, in ♂ simple, joints closely set, basal joint with

pecten. Labial palpi moderate, porrected, second joint loosely scaled, with a few long bristles towards apex, terminal joint moderate, tolerably pointed. Maxillary palpi absent. Posterior tibiæ clothed with loose hairs. Forewings with vein 1 furcate, 6 and 7 stalked, 7 to costa, 11 from before middle. Hindwings  $\frac{1}{5}$ , lanceolate, cilia 2; veins 5 and 6 stalked.

A development of *Tinea*, characterised by the loss of the maxillary palpi, and the increased development of the antennæ, which are longer than the forewings. Only the one endemic species is at present known.

117. *Macr. linobola*, n.sp.

♂♀. 7-10 mm. Head and thorax whitish-ochreous. Palpi and antennæ dark fuscous. Abdomen whitish-grey. Legs dark fuscous, apex of joints and hairs of posterior tibiæ whitish-ochreous. Forewings elongate, narrow, costa gently arched, apex acute, hindmargin extremely obliquely rounded; pale greyish-ochreous, with numerous irregularly scattered dark fuscous spots; the coalescence of these forms an irregular median fascia, and an interrupted one at  $\frac{3}{4}$ : cilia pale greyish-ochreous. Hindwings grey; cilia light grey.

Sydney, New South Wales; from January to March, three specimens.

19. DEMOBROTIS, n.g.

Head densely rough-haired; ocelli absent; tongue rudimentary. Antennæ  $\frac{5}{6}$ , in ♂ simple, joints closely set, basal joint with pecten. Labial palpi moderate, porrected, second joint loosely scaled, with a few bristles towards apex, terminal joint moderate, tolerably pointed. Maxillary palpi long, tolerably filiform, folded. Posterior tibiæ clothed with fine hairs. Forewings with vein 1 furcate, 3 absent, 4 absent, 6 and 7 stalked, 7 to costa, 9 and 10 stalked, 11 from  $\frac{1}{3}$ . Hindwings  $\frac{2}{3}$ , narrow-lanceolate or linear, cilia 3-6; transverse vein absent between 2 and 5, 3 absent, 4 absent, 6 and 7 stalked.

An endemic development of *Tinea*, from which it differs essentially by the loss of several veins. I have only been able to fully examine the neururation of the first species; of the other two I possess only single specimens, and they are so small and narrow-winged that I cannot see the neururation satisfactorily without denudation, but it seems notwithstanding to be similar; the excessive narrowness of the wings in these two species makes it improbable that the neururation is less degraded than in the first, and in any case they can be distinguished from *Tinea* by the linear hindwings.

1. Hindwings lanceolate, cilia 3. .... 118. *anaglypta*.  
Hindwings linear, cilia 6. .... 2.
2. Forewings with groundcolour white. .... 120. *hemiphara*.  
Forewings with groundcolour pale greyish-ochreous. .... 119. *ocymorpha*.

118. *Dem. anaglypta*, n.sp.

♂♀. 7-8 mm. Head white, crown spotted with dark fuscous. Palpi dark fuscous. Antennæ white, obscurely ringed with dark fuscous. Thorax white, sprinkled with dark fuscous. Abdomen whitish-grey. Legs dark fuscous, apex of joints and hairs of posterior tibiæ whitish. Forewings elongate-lanceolate; white, with scattered dark fuscous strigulæ; markings dark fuscous; an oblique mark from costa at  $\frac{1}{5}$ , a second from costa before middle, reaching half across wing and confluent with a longitudinal mark in disc, a small spot on costa beyond middle, and an oblique mark from costa at  $\frac{3}{4}$ , confluent with a longitudinal mark in disc; a spot on submedian fold at  $\frac{1}{3}$ , and a longitudinal mark on fold beyond middle: cilia white, with three or four lines of dark fuscous points. Hindwings lanceolate, cilia 3; grey; cilia whitish-grey.

Sydney, New South Wales; in December and January, five specimens. Larva feeds in a portable case on lichens on rocks, fences, &c.; case small, cylindrical, apex rather tapering, granulated with fragments of lichen and minute grains of sand, mouth large, very oblique.

119. *Dem. ocymorpha*, n.sp.

♂. 7 mm. Head whitish-ochreous. Palpi and antennæ dark fuscous. Thorax whitish-ochreous, shoulders with a dark fuscous spot. Abdomen light grey. Legs dark fuscous, apex of joints and posterior pair whitish. Forewings elongate-lanceolate, narrow; pale greyish-ochreous, with a few blackish scales; costa and inner margin marked with whitish strigulæ, on costa separated by small black spots; a blackish fascia before middle, and a broader one beyond middle, both interrupted in disc with ochreous; a black longitudinal mark in disc towards apex, surrounded by an ochreous suffusion: cilia very pale greyish-ochreous, with two fine black lines, inner line limiting a round black spot above apex marked with two white dots. Hindwings linear, cilia 6; grey; cilia pale ochreous-grey.

Sydney, New South Wales; in March, one specimen.

120. *Dem. hemiphara*, n.sp.

♂. 8 mm. Head and antennæ ochreous-white. Palpi white, with a dark grey median band. Thorax white, shoulders dark fuscous. Abdomen whitish. Legs dark fuscous, apex of joints and posterior pair whitish. Forewings elongate-lanceolate, narrow; white, partially finely sprinkled with ochreous-yellowish; markings fuscous, mixed with blackish; a patch extending over nearly basal half of wing, outer edge rather oblique; a streak along costa from  $\frac{3}{5}$  to apex, marked with three or four whitish strigulæ, and one along hindmargin from anal angle to apex, confluent together posteriorly and with a short longitudinal streak in disc towards apex: cilia fuscous-whitish, basal half on costa fuscous mixed with blackish and marked with extensions of white costal strigulæ. Hindwings linear, cilia 6; grey; cilia whitish-grey.

Brisbane, Queensland; Sydney, New South Wales; in September and October, two specimens.

## 20. ENDOPHTHORA, Meyr.

Head densely rough-haired; ocelli present; tongue obsolete. Antennæ  $\frac{5}{6}$ , in ♂ simple, joints closely set, basal joint with pecten.

Labial palpi moderate, porrected, second joint with appressed scales, slightly rough beneath, with a few long bristles towards apex, terminal joint moderate, tolerably pointed. Maxillary palpi long, filiform, folded. Posterior tibiae clothed with long fine hairs. Forewings with vein 1 simple, 4 absent, 7 to costa, 11 from  $\frac{1}{3}$ . Hindwings  $\frac{2}{3}$ - $\frac{3}{4}$ , narrow-lanceolate, cilia 2-3; veins 5 and 6 sometimes stalked.

Besides the following species there are four in New Zealand, and it is therefore probable that the genus is a development of *Tinea*, originating in New Zealand, of which a straggler has made its way to the Australian region.

121. *End. oxytona*, n.sp.

♂. 10-11 mm. Head white, face mixed with fuscous. Palpi white, externally dark fuscous except apex of joints. Antennae white, annulated with dark fuscous. Thorax white, mixed with dark fuscous. Abdomen whitish-grey. Legs dark fuscous, apex of joints and posterior pair whitish. Forewings very elongate, narrow, costa gently arched, apex acute, hindmargin extremely obliquely rounded; white, mixed with pale ochreous; markings fuscous irrorated with black; a broad streak along costa from base to beyond middle, apex truncate; an irregular suffusion along inner margin from base to anal angle, where it expands into a spot, and is preceded by some scattered black scales in disc; a small cloudy spot on costa at  $\frac{3}{4}$ : cilia white, on hindmargin irrorated with pale ochreous, with two or three incomplete lines of black points, with a blackish elongate spot at apex. Hindwings light grey; cilia ochreous-grey-whitish.

Port Lincoln, South Australia; in November, two specimens.

21. *MYCHONOA*, n.g.

Head rough-haired; ocelli present; tongue developed. Antennae  $\frac{5}{6}$ , in ♂ pubescent, joints closely set, basal joint without pecten. Labial palpi moderate, rather drooping, loosely scaled, slender, terminal joint as long as second, pointed. Maxillary palpi



rudimentary. Posterior tibiæ with appressed scales. Forewings with vein 1 simple, 7 absent, 10 absent, 11 from middle. Hindwings  $\frac{1}{2}$ , elongate-ovate, cilia 1; veins 3 and 4 stalked, 7 absent.

A peculiar and rather isolated genus, apparently allied to *Tinea*, but with the structure partially degraded. Only the one species is known to me.

122. *Mych. mesozona*, n.sp.

♂. 12 mm. Head pale brownish-ochreous. Palpi pale ochreous, externally mixed with dark fuscous. Antennæ fuscous. Thorax, abdomen, and legs dark fuscous, posterior legs suffused with whitish-ochreous. Forewings very elongate, costa gently arched, apex roundpointed, hindmargin very obliquely rounded; dark ochreous-fuscous, with numerous irregular transverse partially confluent pale leaden-grey lines; a dark spot of groundcolour on middle of inner margin: cilia ochreous-fuscous, with several lines of dark fuscous points. Hindwings and cilia dark fuscous.

Rosewood, Queensland; one specimen in September, amongst dense scrub.

22. DRYADAULA, n.g.

Head rough-haired; ocelli present; tongue absent. Antennæ  $\frac{5}{6}$ , in ♂ filiform, simple, basal joint with pecten. Labial palpi moderately long, porrected, second joint rough-scaled towards apex beneath, terminal joint moderately long, dilated with rather loose scales. Maxillary palpi long, filiform, folded. Posterior tibiæ clothed with long hairs. Forewings with vein 1 furcate (?), 7 and 8 stalked, 7 to costa, 11 from  $\frac{1}{3}$ . Hindwings 1, elongate-ovate, cilia 1; vein 5 absent, 6 and 7 from a point or stalked, 6 to hindmargin.

Nearly allied to the following genera, but the exact relationship is uncertain. Besides the one Australian species I have a second from New Zealand.

123. *Dryad. glycinopa*, n.sp.

♂♀. 9-10 mm. Head yellow-whitish, crown more yellowish-tinged. Palpi whitish, second joint with a brownish subapical band. Antennæ whitish, with three dark fuscous bands on apical

half. Thorax pale yellowish. Abdomen grey. Legs whitish, anterior and middle tarsi spotted with blackish. Forewings very elongate, costa gently arched, apex roundpointed, hindmargin extremely obliquely rounded; pale whitish-yellowish, ochreous-tinged; markings yellow-ochreous, suffused with fuscous on costa, intervening spaces more whitish towards costa; a very oblique streak from costa near base to fold, and another from  $\frac{2}{3}$  of costa to middle of disc; an oblique blotch on costa about  $\frac{2}{3}$ ; a spot on costa before apex; an irregular obscure suffusion along inner margin; an irregular longitudinal line of blackish scales towards hindmargin above middle; a suffused blackish line along hindmargin from apex to anal angle: cilia whitish-yellowish, partially suffused with yellow-ochreous. Hindwings grey or pale grey; cilia whitish-grey or whitish.

Blackheath (3500 feet), New South Wales; Deloraine, Tasmania; in November and February, three specimens.

### 23. CHOROCOSMA, n.g.

Head rough-haired; ocelli present; tongue absent. Antennæ  $\frac{5}{6}$ , in ♂ filiform, simple, basal joint without pecten. Labial palpi moderately long, porrected, slender, with appressed scales, second joint with some scattered bristles, terminal joint moderate, tolerably pointed. Maxillary palpi long, filiform, folded. Posterior tibiae clothed with long hairs. Forewings with vein 1 furcate (?), 4 absent, 7 and 8 stalked, 7 to hindmargin, 11 from  $\frac{1}{3}$ . Hindwings  $\frac{3}{4}$ , ovate-lanceolate, cilia  $1\frac{1}{4}$ ; cell open between 3 and 4, 6 absent.

The genus is more nearly allied to *Dryadaula* than to any other; I have only the one species.

### 124. *Chor. melanorma*, n.sp.

♂. 9 mm. Head white. Palpi fuscous, internally and at apex white. Antennæ fuscous. Thorax whitish, shoulders with a yellow-ochreous spot. Abdomen grey. Legs blackish ringed with white, hairs of posterior tibiae whitish. Forewings elongate, costa rather strongly arched, apex acute, hindmargin extremely

oblique, hardly rounded ; bright yellow-ochreous ; three suffused white angulated fasciæ, more or less confused together, first rather broad, second narrow, not reaching costa, third narrow, cloudy, not reaching inner margin ; a sharply defined interrupted black line round apical third of costa and hindmargin to anal angle, surrounded with white, at apex forming a small round black spot : cilia yellow-ochreous, towards tips whitish, with a black spot at apex. Hindwings and cilia light grey.

Sydney, New South Wales ; one specimen in October.

#### 24. COMODICA, Meyr.

Head rough-haired ; ocelli present ; tongue absent. Antennæ  $\frac{5}{6}$ , in ♂ filiform, simple, with deep notch immediately above basal joint, basal joint elongate, sometimes dilated terminally, sometimes with apical projecting tooth, without pecten. Labial palpi moderately long, porrected, second joint beneath smooth or with dense tuft of scales towards apex, terminal joint moderate, smooth or loosely scaled or with long dense projecting scales beneath throughout. Maxillary palpi long, filiform, folded. Posterior tibiæ clothed with long fine hairs. Forewings sometimes with elongate transparent grooved patch beneath costa towards base, costal area sometimes thickened before 11 ; 1 furcate, lower fork partially obsolete, 4 absent, 7 sometimes absent, rarely 8 also absent, 11 from  $\frac{1}{3}$ . Hindwings 1, ovate-lanceolate, cilia 1-1 $\frac{1}{2}$  ; veins 5 and 6 stalked, 6 to costa.

A development of *Ereunetis*, characterised by the peculiar antennal structure, formerly overlooked by me ; it is not yet known outside Australia. The variation of neuration in the forewings appears to occur within the limits of the same species.

1. Forewings with two hooks in apical cilia .. 125. *tetracercella*.  
Forewings with one hook in apical cilia..... 2.
2. Forewings with groundcolour ochreous... .. 126. *acontistes*.  
Forewings with groundcolour not ochreous 3.
3. Terminal joint of palpi with dense fringe of  
hairs beneath..... 128. *mystacinella*.  
Terminal joint of palpi smooth, filiform..... 127. *ællophora*.

125. *Com. tetracercella*, Meyr.

(*Comodica tetracercella*, Meyr., Proc. Linn. Soc. N. S. Wales, 1880, 255.)

The original statement of neuration is partially incorrect ; at least, if veins 5 and 6 of hindwings are ever separate as stated, it must be exceptional, though I do not imagine I was mistaken as to the specimen examined ; these veins are however stalked in all the specimens which I now possess.

126. *Com. acantistes*, Meyr.

(*Erechthias acantistes*, Meyr., Proc. Linn. Soc. N. S. Wales, 1880, 266.)

127. *Com. ællophora*, Meyr.

(*Erechthias ællophora*, Meyr., Proc. Linn. Soc. N. S. Wales, 1880, 270.)

128. *Com. mystacinella*, Walk.

(*Erechthias mystacinella*, Meyr., Proc. Linn. Soc. N. S. Wales, 1880, 263.)

Also at Launceston and Hobart, Tasmania.

## 25. EREUNETIS, Meyr.

Head rough-haired ; ocelli present ; tongue absent. Antennæ  $\frac{5}{6}$ , in ♂ filiform, simple, basal joint moderate, with or without pecten. Labial palpi moderately long, porrected, second joint with appressed or short rough scales beneath, with some long scattered bristles, terminal joint with tolerably appressed scales or long rough hairs beneath, somewhat pointed. Maxillary palpi long, filiform, folded. Posterior tibiæ clothed with long fine hairs. Forewings with vein 1 furcate, lower fork partially obsolete, 4 absent, 7 and 8 stalked, 7 to costa or sometimes absent, 11 from  $\frac{1}{3}$ . Hindwings  $\frac{1}{2}$ -1, lanceolate, cilia  $1\frac{1}{2}$ -2 ; veins 5 and 6 stalked or rarely separate, 6 to costa or apex or rarely hindmargin ; in ♂ sometimes with transparent patch or thickened spot of scales beneath towards base.

A development of *Erechthias*; besides the eight Australian I have also eight New Zealand species. The typical genus *Erechthias*, differing from *Ereunetis* (according to the present revised definition) by the presence of all veins in the forewings, is confined to New Zealand. *Decadarchis*, Meyr., cannot be maintained as a distinct genus, and must be merged in *Ereunetis*.

- |  |                            |
|--|----------------------------|
| 1. Forewings with groundcolour blackish-fus-<br>fuscous .....              | 2.                         |
| Forewings with groundcolour not blackish-<br>fuscous.....                  | 5.                         |
| 2. Forewings with white costal mark at $\frac{1}{4}$ .....                 | 3.                         |
| Forewings without white costal mark at $\frac{1}{4}$                       | 4.                         |
| 3. Forewings with basal streak interrupted but<br>reaching middle.....     | 129. <i>phileris</i> .     |
| Forewings with basal streak not passing $\frac{1}{6}$                      | 130. <i>oxymacha</i> .     |
| 4. Forewings with basal streak more or less<br>completely interrupted..... | 131. <i>symmacha</i> .     |
| Forewings with basal streak entire.....                                    | 132. <i>niphadopla</i> .   |
| 5. Forewings with white median longitudinal<br>streak!.....                | 133. <i>elaeorrhoea</i> .  |
| Forewings without white median longitu-<br>dinal streak.....               | 6.                         |
| 6. Forewings with dark fuscous costal blotches                             | 135. <i>brontoctypa</i> .  |
| Forewings without dark fuscous costal<br>blotches.....                     | 7.                         |
| 7. Terminal joint of palpi with long rough hairs<br>beneath .....          | 136. <i>iuloptera</i> .    |
| Terminal joint of palpi with appressed scales.                             | 134. <i>selenophanes</i> . |

129. *Ereun. phileris*, n.sp.

♂♀. 9-11 mm. Head ochreous-white, sides black. Palpi black, internally and at apex white. Antennæ dark grey. Thorax blackish-fuscous, with white central stripe. Abdomen dark grey. Legs blackish, ringed with white. Forewings very elongate, narrow, costa gently arched, apex roundpointed, hindmargin extremely obliquely rounded; blackish-fuscous; markings ochreous-

white; a fine median longitudinal streak from base to middle of disc, obliquely interrupted at  $\frac{1}{3}$ ; a very oblique wedgeshaped mark from costa at  $\frac{1}{4}$ , almost reaching middle of disc; a narrow oblique fascia from beyond middle of costa to middle of hindmargin, lower portion attenuated or partially obsolete; a fine oblique streak from costa at  $\frac{1}{5}$  to beneath apex; a moderate streak along inner margin from near base to anal angle, upper edge forming rather strong irregular projections before and beyond middle; a fine more or less interrupted line along hindmargin; a round black apical spot, preceded by a white mark on costa: cilia golden-ochreous, towards tip whitish, with a blackish line, tips round apex dark fuscous. Hindwings and cilia dark fuscous; 6 to apex.

Albany, West Australia; in December, taken in plenty on a fence beneath *Eucalyptus* trees.

130. *Ereun. oxymacha*, n.sp.

♀. 10 mm. Head white, sides black. Palpi black, internally and at apex white. Antennæ dark fuscous. Thorax blackish. Abdomen dark grey. Legs dark fuscous ringed with whitish, hairs of posterior tibiae whitish. Forewings very elongate, narrow, costa gently arched, apex roundpointed, hindmargin extremely obliquely rounded; blackish; markings white; a short linear median mark from base; three oblique wedgeshaped marks from costa, reaching about half across wing, at  $\frac{1}{3}$ , beyond middle, and  $\frac{1}{5}$  respectively; a streak along inner margin from near base to near anal angle, almost interrupted beyond middle; a round blackish apical spot, partly in cilia, preceded by a small triangular white spot on costa: cilia whitish, with a black line, and blackish apical bar. Hindwings with vein 6 to costa; dark grey; cilia grey.

Geraldton, West Australia; one specimen in November.

131. *Ereun. symmacha*, n.sp.

♂♀. 9-11 mm. Head white, sides black. Palpi black, apex white. Antennæ fuscous. Thorax blackish, with white central stripe. Abdomen grey. Legs blackish ringed with white, hairs

of posterior tibiæ whitish. Forewings very elongate, narrow, costa gently arched, apex roundpointed, hindmargin extremely obliquely rounded; blackish-fuscos; markings snow-white; a median streak from base to middle of disc, more or less completely interrupted at  $\frac{1}{4}$ ; a streak along inner margin from near base to anal angle, interrupted near its extremity; an oblique fascia-like streak from costa beyond middle, nearly reaching anal angle; an oblique spot on costa at  $\frac{4}{5}$ ; a round black apical spot, partly in cilia, edged with white anteriorly: cilia whitish, base white, with two or towards anal angle three blackish lines. Hindwings and cilia light grey; 6 to costa.

Blackheath (3500 feet), New South Wales; Melbourne, Victoria; Launceston, Deloraine, and Georges Bay, Tasmania; from November to January, taken in plenty on *Eucalyptus*-trunks.

132. *Ereun. niphadopla*, Meyr.

(*Erechthias niphadopla*, Meyr., Proc. Linn. Soc. N. S. Wales, 1880, 270.)

133. *Ereun. elaeorrhoea*, Meyr.

(*Erechthias elaeorrhoea*, Meyr., Proc. Linn. Soc. N. S. Wales, 1880, 267.)

134. *Ereun. selenophanes*, Meyr.

(*Ereunetis selenophanes*, Meyr., Proc. Linn. Soc. N. S. Wales, 1880, 259.)

Also at Sydney, New South Wales, in August.

135. *Ereun. brontoctypa*, Meyr.

(*Ereunetis brontoctypa*, Meyr., Proc. Linn. Soc. N. S. Wales, 1880, 259.)

136. *Ereun. iuloptera*, Meyr.

(*Ereunetis iuloptera*, Meyr., Proc. Linn. Soc. N. S. Wales, 1880, 260.)

26. EURYTYLA, n.g.

Head rough; ocelli present (?); tongue absent. Antennæ  $\frac{5}{6}$ , in ♂ filiform, simple, basal joint moderate, with pecten. Labial

palpi moderately long, rather drooping, slender, filiform, terminal joint moderate, pointed. Maxillary palpi long, filiform, folded. Posterior tibiae smooth above, with fine hairs beneath. Abdomen broadly dilated, strongly margined. Forewings with vein 1 furcate (?), 4 absent, 7 to costa, 11 from  $\frac{1}{3}$ . Hindwings  $\frac{2}{3}$ , lanceolate, cilia 3; transverse vein absent between 3 and 4, 5 and 6 stalked, 7 absent.

Probably a development of *Ereunetis*.

137. *Eur. automacha*, n.sp.

♂. 7 mm. Head fuscous-whitish. Palpi white, beneath dark fuscous. Antennae white, above with a black sharply-defined line. Thorax dark fuscous mixed with whitish. Abdomen dark fuscous, margins pale ochreous. Legs dark fuscous, ringed with whitish, posterior tibiae whitish. Forewings lanceolate; fuscous, irrorated with dark fuscous; markings white; five oblique streaks from costa, reaching about half across wing; a suffusion occupying dorsal half from base to anal angle, except for dark fuscous indentations from disc at  $\frac{1}{5}$  and middle; a round black apical spot, preceded by a white spot on costa: cilia whitish, with a black line and apical hook (imperfect). Hindwings and cilia dark fuscous.

Mittagong, New South Wales; one specimen in March.

27. HIPPIOCHAETES, Meyr.

Head rough, face smooth; ocelli present; tongue absent. Antennae  $\frac{5}{6}$ , in ♂ filiform, ciliated (1), basal joint moderate, with slight pecten. Labial palpi rather short, slender, filiform, rather drooping. Maxillary palpi moderate, filiform, folded. Posterior tibiae clothed with long hairs beneath, posterior tarsi with basal joint fringed with hairs. Forewings with vein 1 furcate (?), 4 absent, 7 to costa, 11 from  $\frac{1}{3}$ . Hindwings  $\frac{3}{4}$ , lanceolate, cilia 2; veins 5 and 6 stalked, 6 to costa.

The original example is still unique; it is presumably an offshoot of *Ereunetis*.



138. *Hipp. chrysaspis*, Meyr.

(*Hippiochaetes chrysaspis*, Meyr., Proc. Linn. Soc. N. S. Wales. 1880, 253.)

28. *HIEROXESTIS*, n.g.

Head with dense erect tuft on crown, face smooth; ocelli small; tongue developed. Antennæ  $\frac{5}{6}$ , in ♂ serrulate, with whorls of short cilia, basal joint very long, dilated, concave beneath, in ♂ with projection of dense scales on upper edge. Labial palpi moderately long, curved, ascending, smooth-scaled, second joint with several long bristles towards apex, terminal joint half second, rather thick, obtuse. Maxillary palpi long, filiform, folded. Posterior tibiae clothed with very long hairs. Forewings with vein 1 simple, 5 closely approximated at base to 6, 7 and 8 out of 6, 7 to costa, 9 from point with 6, 10 absent, 11 from  $\frac{3}{4}$  of cell. Hindwings  $\frac{4}{5}$ , lanceolate, cilia  $1\frac{1}{2}$ ; vein 4 approximated at base to 7, 5 and 6 out of 7, 6 to hindmargin.

This curious genus stands so far isolated from other Australian forms, that, taking into consideration its mode of feeding, I have suspected it to be an introduction from another region; however, I know no evidence of its occurrence elsewhere. It is allied to the *Tinea* group, but has undergone very great modification.

139. *Hier. omoscopa*, n.sp.

♂♀. 20-22 mm. Head dark fuscous, tuft lighter fuscous, face pale greyish-ochreous. Palpi dark fuscous, internally and at apex of joints pale greyish-ochreous. Antennæ pale greyish-ochreous, basal joint dark fuscous. Thorax dark fuscous. Abdomen pale greyish-ochreous. Legs dark fuscous, apex of joints and hairs of posterior tibiae pale greyish-ochreous. Forewings very elongate, long-pointed, apex very narrowly and acutely produced; dark fuscous, purplish-tinged; a pale greyish-ochreous spot on inner margin before anal angle: cilia pale fuscous, base mixed with darker. Hindwings light brassy-fuscous, becoming pale greyish-ochreous towards base; cilia light fuscous, becoming whitish-ochreous towards anal angle.

Newcastle and Sydney, New South Wales; from June to December, sometimes common on fences near houses. It has been bred from larvæ feeding on sheets of cork.

## 29. TIMAEA, Walk.

Head densely rough-haired on crown, face with appressed hairs; ocelli present; tongue short. Antennæ  $\frac{2}{3}$ , in ♂ serrate, ciliated (1), basal joint moderate, with pecten. Labial palpi moderately long, ascending, second joint shortly rough-scaled beneath, with numerous long scattered bristles, terminal joint as long as second, slender, with appressed scales, pointed. Maxillary palpi short, loosely scaled. Posterior tibiæ clothed with long rough hairs. Forewings with vein 1 furcate, 7 to costa, 11 from before middle. Hindwings 1, elongate-ovate, cilia  $\frac{3}{4}$ ; veins 5 and 6 somewhat approximated at base, 6 to costa.

The genus must be not very remotely connected with *Tinea*, but the intermediate forms are missing. It nearly represents the ancestral type from which most of the succeeding genera can be derived.

### 140. *Tim. bivittatella*, Walk.

(*Timaea bivittatella*, Walk. 521; *T. costella*, ib. 521; *Manliana astrictella*, ib. 1012.)

♂♀. 21-24 mm. Head white, forehead and sides of face rather dark fuscous. Palpi white, terminal joint externally dark fuscous towards apex. Antennæ grey-whitish. Thorax whitish-ochreous. Abdomen whitish. Legs dark ochreous-fuscous, posterior pair whitish. Forewings very elongate, costa moderately arched, apex acute, hindmargin very oblique, slightly sinuate; snow-white; a narrow dark fuscous ochreous-tinged streak along costa from near base to near apex, finely attenuated anteriorly; in ♀ also a narrow straight yellowish-brown median longitudinal streak from base to apex; cilia white. Hindwings pale whitish-grey or grey-whitish; cilia whitish.

Sydney and Blackheath (3500 feet), New South Wales; Melbourne and Warragul, Victoria; Georges Bay, Tasmania; Mount Lofty, South Australia; Perth and Albany, West Australia; from

October to January, common in swampy places. The sexual difference in marking is an unusual character in this group.

### 30. THUDACA, Walk.

Head with dense erect hairs on crown, face smooth, sometimes with deep cavity in ♂; ocelli present; tongue well-developed. Antennæ  $\frac{4}{5}$ , in ♂ serrate, very shortly ciliated ( $\frac{1}{4}$ ), basal joint without pecten. Labial palpi long or rather long, somewhat curved, ascending, with appressed scales, second joint more or less long, in ♂ sometimes flatly compressed, terminal joint  $\frac{1}{2}$  to  $\frac{2}{3}$  of second, more or less pointed, or in ♂ sometimes minute, aborted. Maxillary palpi rudimentary. Posterior tibiæ clothed with long hairs. Forewings with vein 1 furcate, 7 and 8 stalked, 7 to hindmargin, 11 from before middle. Hindwings 1, elongate-ovate, cilia  $\frac{1}{3}$ - $\frac{1}{2}$ ; veins 3 and 4 from a point or closely approximated at base.

A curious and interesting genus, apparently endemic, especially characteristic of Western Australia. It is not very close to any of its allies, but might be a development of *Timaea*. The singular conformation of the forehead and labial palpi in the ♂ of some species is noticed under *T. crypsidesma*; these species so closely approach others in every other character, that there can be no question of generic separation, but the case is a highly peculiar one, and requires further investigation.

- |  |                        |
|--|------------------------|
| 1. Forewings with white median longitudinal streak from base.....  | 2.                     |
| Forewings without white median longitudinal streak from base ..... | 7.                     |
| 2. Median streak entire, reaching hindmargin                       | 153. <i>trabeata</i> . |
| Median streak interrupted posteriorly ...                          | 3.                     |
| 3. Costal or subcostal white streak interrupted in middle.....     | 4.                     |
| Costal or subcostal white streak not interrupted.....              | 6.                     |

4. Forewings with a white dorsal streak ... 151. *orthodroma*.  
Forewings with two or three white dorsal spots ..... 5.
5. Median streak with three quadrate projections beneath ..... 150. *cymatistis*.  
Median streak without quadrate projections ..... 149. *ophiosema*.
6. Median streak with two triangular projections beneath ..... 148. *calliphrontis*.  
Median streak without projections beneath 152. *stadiaula*.
7. Forewings with ochreous costal streak hardly reaching middle ..... 141 *circumdatella*.  
Forewings with orange subcostal streak reaching  $\frac{2}{3}$  or more..... 8.
8. First transverse streak forming a zigzag or absent..... 9.  
First transverse streak straight, present 10.
9. Forewings with inner margin orange except near base.. ..... 142. *heterastis*.  
Forewings with inner margin white throughout ..... 143. *campylota*.
10. First transverse streak reaching subdorsal streak ..... 11.  
First transverse streak not reaching subdorsal streak ..... 12.
11. Face in ♂ with deep cavity; first transverse streak with grey bar..... 146. *mimodora*.  
Face in ♂ flat; first transverse streak not barred ..... 147. *obliquella*.
12. Forewings with inner margin orange except near base..... 145. *haplonota*.  
Forewings with inner margin white throughout ..... 144 *cryptsidesma*.

141. *Thud. circumdatella*, Walk.(*Tonza circumdatella*, Walk. 1012.)

♂. 15-16 mm. Head whitish, sides and forehead brownish-ochreous. Palpi with second joint exceeding base of antennæ, terminal joint  $\frac{1}{2}$ ; whitish, mixed with ochreous-fuscous. Antennæ ochreous-whitish. Thorax whitish, patagia brownish-ochreous. Abdomen ochreous-whitish. Legs white, anterior femora, tibiæ, and basal joint of tarsi dark fuscous. Forewings elongate-oblong, costa moderately arched, apex obtuse, hindmargin straight, oblique; snow-white; a suffused brownish-ochreous streak along basal half of costa, attenuated and very indistinct posteriorly; a straight brownish-orange subdorsal streak from base to anal angle, upper edge with short triangular projection near extremity: cilia ochreous-whitish, basal half brownish-orange. Hindwings ochreous-grey-whitish; cilia ochreous-whitish.

Sydney, New South Wales; in October and March, three specimens.

142. *Thud. heterastis*, n.sp.

♂. 16-20 mm. Head and thorax orange or orange-yellowish. Palpi with second joint somewhat exceeding base of antennæ, terminal joint  $\frac{1}{2}$ ; whitish, more or less infuscated except towards base. Antennæ whitish-ochreous. Abdomen pale whitish-ochreous. Legs ochreous-whitish, anterior femora and tibiæ dark fuscous, middle tibiæ yellow or orange. Forewings elongate-oblong, costa gently arched, apex roundpointed, hindmargin faintly sinuate, oblique; snow-white; a moderate orange streak immediately beneath costa from base to costa near apex, sometimes obsolete beyond  $\frac{2}{3}$ ; a rather broad orange streak along inner margin to anal angle, becoming suddenly subdorsal on basal fourth and not quite reaching base, usually more or less wholly suffused with dark fuscous, posteriorly attenuated; a transverse orange streak suffused with dark fuscous, from subcostal streak at  $\frac{3}{5}$  to middle of dorsal streak, forming an obtuse-angled zigzag in middle, sometimes interrupted or wholly absent; a straight orange streak, suffused with dark fuscous, from costa near apex to anal angle,

sometimes widely interrupted or visible at extremities only; some dark fuscous scales on hindmargin: cilia fuscous-whitish, basal half light orange. Hindwings pale whitish-grey, faintly yellowish-tinged; cilia pale whitish-yellowish.

Geraldton, West Australia; in November, five specimens. This species is exceptional in the genus in being highly variable, whilst the rest are very stable.

143. *Thud. campylota*, n.sp.

♂. 17-18 mm. Head and thorax bright orange. Palpi with second joint exceeding base of antennæ, terminal joint  $\frac{1}{2}$ ; whitish, more or less infuscated except towards base. Antennæ pale fuscous. Abdomen whitish-ochreous. Legs whitish-ochreous, anterior pair dark fuscous, middle tibiæ orange. Forewings elongate-oblong, costa gently arched, apex roundpointed, hindmargin straight, oblique; snow-white; markings bright orange, partially blackish-edged; costal edge blackish towards base; a moderate streak immediately beneath costa from base to costa before apex; a subdorsal somewhat irregular streak from base almost to anal angle; a transverse streak from  $\frac{2}{3}$  of subcostal streak to middle of subdorsal, forming an obtuse-angled zigzag in middle; a straight rather irregular-edged streak from extremity of subcostal to extremity of subdorsal streak; some blackish scales on hindmargin: cilia orange, towards tips whitish-ochreous. Hindwings light grey; cilia whitish-yellowish.

Perth, West Australia; in November, two specimens.

144. *Thud. crypsidesma*, n.sp.

♂. 19-20 mm. Head light yellow-ochreous, sides bright orange, face with large deep central cavity containing a flocculent hairy substance. Palpi light orange; second joint rather dilated and flattened, partially denuded externally, with flocculent loose hairs internally, hardly reaching base of antennæ, appressed to face, terminal joint minute, aborted. Antennæ pale fuscous. Thorax orange, somewhat mixed with whitish posteriorly. Abdomen whitish-ochreous, with small expansible tuft of hairs on each side

near base. Legs dark fuscous, middle tibiae orange, posterior pair whitish-ochreous. Forewings elongate-oblong, costa gently arched, apex roundpointed, hindmargin slightly sinuate, oblique; snow-white; markings bright orange; costal edge blackish near base; a moderate streak immediately beneath costa from base to costa before apex; a subdorsal streak, black-edged above, from base to anal angle; two black-edged straight transverse streaks, first from subcostal streak at  $\frac{2}{3}$  to above middle of subdorsal but not nearly reaching it, suffusedly barred with blackish-grey above middle, second from extremity of subcostal to subdorsal before extremity, suffused with blackish-grey towards costa and on a bar above lower end; a blackish line along hindmargin: cilia light ochreous-yellowish, basal half orange, with a cloudy dark grey bar above apex. Hindwings grey; cilia pale whitish-yellowish.

Melbourne, Victoria; Port Lincoln, South Australia; in November, two specimens. The remarkable structure of the frontal cavity in this and the next two species, with the accessory modification of the palpi, is highly peculiar, and I know nothing quite analogous to it in other families; it seems to me very surprising that so profound a modification of structure (for the cavity appears to occupy the greater portion of the head), without connecting links, should distinguish these species from others so closely allied to them in all other respects that, in the case of *T. mimodora* which possesses this structure and *T. obliquella* which does not, I am hardly able to detect any difference except in this particular. From the nature of the flocculent substance in the cavity, I suppose it to be a scent-producing organ. If the lateral tufts of the abdomen are also for the same purpose, the provision would seem to be profuse.

145. *Thud. haplonota*, n.sp.

♂♀. 19-20 mm. Head bright orange, face whitish-orange, in ♂ with cavity as in *T. crypsidesma*. Palpi light orange; second joint in ♂ rather dilated and flattened, hardly reaching base of antennæ, appressed to face, with long flocculent hairs on inner side, in ♀ normal, rather exceeding base of antennæ, apex infuscated,

terminal joint in ♂ minute, aborted, in ♀  $\frac{1}{2}$ , whitish, anteriorly infuscated. Antennæ pale fuscous. Thorax bright orange, posteriorly somewhat mixed with whitish. Abdomen whitish-ochreous, with rather long expansible tuft of hairs on each side near base. Legs dark fuscous, middle tibiæ orange, posterior pair whitish-ochreous. Forewings elongate-oblong, costa gently arched, apex roundpointed, hindmargin straight, oblique; silvery-white; markings bright orange; costal edge blackish near base; a moderate streak immediately beneath costa from base to costa before apex; a rather broad dorsal streak, partly black-edged above, from base to anal angle, attenuated posteriorly, leaving inner margin slenderly white near base only; two straight partially black-edged transverse streaks, first from subcostal streak at  $\frac{3}{5}$  to above middle of subdorsal but not nearly reaching it, suffusedly barred with blackish-grey above middle, second from extremity of subcostal to subdorsal before extremity, suffused with blackish-grey towards costa and on a bar above lower end; a few blackish scales on hindmargin: cilia ochreous-yellowish, basal half orange, with cloudy dark grey bar above apex. Hindwings light grey, faintly yellowish-tinged; cilia pale whitish-yellowish.

Geraldton, West Australia; in November, four specimens.

146. *Thud. mimodora*, n.sp.

♂. 17-18 mm. Head bright orange, face lighter, with cavity as in *T. crypsidesma*. Palpi light orange; second joint dilated and flattened, not reaching base of antennæ, appressed to face, with long flocculent hairs on inner side, terminal joint minute, aborted. Antennæ pale fuscous. Thorax bright orange, sometimes whitish posteriorly. Abdomen whitish-ochreous. Legs dark fuscous, middle tibiæ orange, posterior pair whitish-ochreous. Forewings elongate-oblong, costa moderately arched, apex roundpointed, hindmargin straight, oblique; snow-white; markings bright orange; costal edge blackish near base; a moderate streak immediately beneath costa from base to costa before apex; a moderate subdorsal streak from base to anal angle, edged above



with a few black scales; two straight partially black-edged transverse streaks, first from subcostal at  $\frac{2}{3}$  to middle of subdorsal streak, obscurely barred with dark grey above middle, second from apex of subcostal to subdorsal before apex, suffused with dark grey towards costa and on a bar above lower end; a few blackish scales on hindmargin: cilia ochreous-yellowish, basal half orange, with cloudy dark grey bar above apex. Hindwings grey, lighter towards base, faintly yellowish-tinged; cilia pale whitish-yellowish.

Sydney, New South Wales; in February and March, two specimens.

147. *Thud. obliquella*, Walk.

(*Thudaca obliquella*, Walk. 825.)

♂♀. 16-18 mm. Differs from *T. mimodora* only as follows: face in ♂ without cavity; palpi in both sexes orange, infuscated except towards base, second joint cylindrical, exceeding base of antennæ, terminal joint  $\frac{1}{2}$ ; middle tarsi more whitish; forewings with first transverse streak without dark bar above middle, second transverse streak without dark bar above lower end; a blackish line along hindmargin: hindwings lighter grey, suffused with pale whitish-ochreous.

Sydney and Newcastle, New South Wales; in October, December, January, and March, common. Larva 16-legged, elongate, rather tapering towards extremities; head and second segment oblong, second segment rather constricted behind; with scattered blackish hairs; dull green, incisions yellow; a dark fuscous-red dorsal stripe, containing a much paler central line, marked with white on incisions and wholly whitish anteriorly; spiracular whitish; spots small, black, ringed with whitish; head green, crown reddish-tinged, spotted with black; legs green, anal claspers dark purplish-crimson: it feeds on *Leptospermum* (*Myrtaceae*), hardly making any web, in September and October. Pupa naked, standing erect on tail, which is truncate; it exactly imitates a leaf of *Leptospermum*; green, with a dorsal ridge, and white lateral lines, head produced into a sharp curved spine.

148. *Thud. calliphrontis*, n.sp.

♀. 20 mm. Head white mixed with dark fuscous. Palpi white sprinkled with dark fuscous, second joint much exceeding base of antennæ, terminal joint  $\frac{1}{2}$ . Antennæ white, annulated with pale fuscous. Thorax white, patagia and a central spot deep ochreous. Abdomen ochreous-whitish. Legs whitish, anterior pair dark fuscous, middle pair sprinkled with dark fuscous. Forewings elongate-oblong, costa moderately arched, apex roundpointed, hindmargin straight, oblique; brownish-ochreous, posteriorly irrorated with black between veins; markings snow-white; costal edge blackish near base; a narrow suffusion along middle third of costa; a moderate streak from costa near base beneath costa to costa again before apex, posteriorly emitting two slender branches from upper edge; a moderate irregular median longitudinal streak from base to hindmargin above middle, constricted at  $\frac{1}{3}$ , lower edge with triangular projections before and after constriction, narrowly interrupted at  $\frac{3}{4}$ , bent upwards posteriorly, furcate at apex; a cloudy streak of mixed white and blackish scales along inner margin from base to anal angle: cilia white, with a blackish line, tips brownish-ochreous. Hindwings whitish-grey; cilia whitish.

Port Lincoln, South Australia; one specimen in November.

149. *Thud. ophiosema*, n.sp.

♂. 16 mm. Head pale whitish-ochreous. Palpi ochreous-whitish, second joint mixed with ochreous and dark fuscous, exceeding base of antennæ, terminal joint  $\frac{1}{2}$ . Antennæ whitish. Thorax pale ochreous mixed with whitish. Abdomen pale whitish-ochreous. Legs whitish, anterior pair dark fuscous, middle tibiae with basal and apical dark fuscous spots. Forewings elongate, costa gently arched, apex roundpointed, hindmargin very obliquely rounded; light ochreous-brown, somewhat darker posteriorly; a white costal streak from near base to  $\frac{4}{5}$ , interrupted by an inwardly oblique bar of groundcolour about middle; a white spot on inner margin at  $\frac{1}{3}$ , preceded by a dark fuscous suffusion, and two small

cloudy white spots on inner margin at  $\frac{2}{3}$ ; a moderate white median longitudinal streak from base to  $\frac{4}{5}$ , sinuate upwards in middle, and with extremity bent upwards, partially margined with dark fuscous suffusion, which is continued posteriorly as a broad band to hindmargin; a moderate irregular-edged white submarginal streak from apex to anal angle: cilia whitish, base somewhat mixed with brownish. Hindwings and cilia ochreous-whitish.

Geraldton, West Australia; one specimen in November.

150. *Thud. cymatistis*, n.sp.

♂♀. 14-16 mm. Head ochreous-whitish. Palpi white, somewhat sprinkled with dark fuscous, second joint exceeding base of antennæ, terminal joint  $\frac{2}{3}$ . Antennæ ochreous-whitish. Thorax ochreous-whitish, patagia ochreous, sometimes wholly brownish-ochreous. Abdomen ochreous-whitish. Legs white, anterior pair dark fuscous, middle tibiæ with dark fuscous basal and apical bands. Forewings elongate, costa gently arched, apex roundpointed, hindmargin rounded, rather strongly oblique; ochreous brown, lighter towards base and costa; markings snow-white; a streak along costa from near base to middle; an elongate blotch along costa from beyond middle to  $\frac{4}{5}$ ; an irregular median longitudinal streak from base to  $\frac{3}{4}$ , lower margin forming quadrate projections at base, middle, and apex; a white spot on inner margin at  $\frac{1}{3}$  and another at  $\frac{2}{3}$ ; an irregular submarginal streak from apex to anal angle: cilia pale grey, basal third mixed with ochreous and barred with white at apex, middle of hindmargin, and anal angle. Hindwings whitish-grey; cilia ochreous-whitish.

Carnarvon, West Australia; taken in plenty in October.

151. *Thud. orthodroma*, n.sp.

♂♀. 13-14 mm. Head white, mixed with dark fuscous. Palpi rather dark fuscous, base and apex of joints white, second joint exceeding base of antennæ, terminal joint  $\frac{1}{2}$ . Antennæ ochreous-whitish. Thorax brownish-ochreous, posterior extremity white. Abdomen whitish-ochreous. Legs whitish, anterior pair dark

fuscous, middle pair with basal and apical bands of tibiae and apical suffusion of tarsi dark fuscous. Forewings elongate, costa gently arched, apex almost acute, hindmargin very obliquely rounded; golden-ochreous-brown; markings snow-white; a streak along costa from  $\frac{1}{5}$  to before middle; a subcostal streak from before middle to costa at  $\frac{3}{4}$ ; a median longitudinal streak from base to  $\frac{3}{4}$ , lower edge emarginate in middle, apex bent upwards; a streak along inner margin from  $\frac{1}{4}$  to near anal angle; an elongate blotch along upper  $\frac{2}{3}$  of hindmargin, and a small spot on anal angle: cilia light ochreous-grey, base mixed with ochreous-brown, with a white bar at apex. Hindwings light grey; cilia pale whitish-ochreous, greyish-tinged.

Geraldton, West Australia; in November, common.

152. *Thud. stadiaula*, n.sp.

♂. 15 mm. Head white, crown mixed with ochreous-brown. Palpi dark fuscous, base and apex of joints white, second joint exceeding base of antennae, terminal joint  $\frac{1}{2}$ . Antennae brownish-ochreous. Thorax brownish-ochreous, posterior extremity white. Abdomen whitish-ochreous. Legs white, anterior pair dark fuscous, middle pair with basal and apical bands of tibiae and apical suffusion of tarsi dark fuscous. Forewings elongate, costa gently arched, apex roundpointed, hindmargin rounded, rather strongly oblique; deep coppery-golden-ochreous; markings silvery-white; a streak along costa from near base to near apex, becoming subcostal for a short distance in middle; a straight median longitudinal streak from base to  $\frac{5}{6}$ , apex truncate; a streak along inner margin from near base to anal angle; an elongate spot extending along upper  $\frac{2}{3}$  of hindmargin: cilia light greyish-ochreous, basal half darker ochreous-grey, with a white bar at apex. Hindwings pale whitish-ochreous-grey; cilia whitish-ochreous.

Geraldton, West Australia; in November, two specimens.

153. *Thud. trabeata*, n.sp.

♂♀. 15-18 mm. Head white, face and forehead brownish-ochreous, back of crown with two ochreous-brown stripes. Palpi

rather dark fuscous, base and apex of joints whitish, second joint much exceeding base of antennæ, terminal joint  $\frac{1}{2}$ . Antennæ fuscous. Thorax golden-ochreous, with white dorsal stripe. Abdomen whitish-ochreous. Legs rather dark fuscous, middle tibiæ whitish, posterior pair whitish-ochreous. Forewings elongate, costa gently arched, apex roundpointed, hindmargin very obliquely rounded; deep golden-ochreous; markings snow-white; a straight subcostal streak from costa near base to costa again near apex; a straight median longitudinal streak from base to hindmargin beneath apex; a streak along inner margin from base to anal angle, attenuated near base: cilia whitish-ochreous, basal third deeper ochreous, with a white apical bar. Hindwings light grey; cilia whitish-ochreous.

Sydney, Blackheath (3500 feet), and Mount Kosciusko (6000 feet), New South Wales; Georges Bay, Tasmania; Mount Lofty, South Australia; Geraldton and Perth, West Australia; from October to February, common.

### 31. *DASCIA*, n.g.

Head with dense rough hairs on crown, projecting between antennæ, face smooth; ocelli present; tongue short. Antennæ  $\frac{3}{4}$ , in ♂ serrate, shortly ciliated ( $\frac{1}{2}$ ), basal joint without pecten. Labial palpi moderate, porrected, terminal joint and apex of second beneath with dense rough projecting hairs forming a loose tuft. Maxillary palpi rudimentary. Posterior tibiæ clothed with long hairs. Forewings with vein 1 furcate, 7 to costa, 11 from middle. Hindwings 1, ovate-lanceolate, cilia 1; veins 5 and 6 approximated towards base.

An isolated genus, standing about midway between *Zelleria* and the *Tinea* group, but the nature of its relationship to them is at present uncertain; it may really be a transitional link.

### 154. *Dasc. sagittifera*, n sp.

♂♀. 11-15 mm. Head ochreous-white, between antennæ sometimes mixed with blackish. Palpi dark fuscous, towards apex white. Antennæ grey, base white. Thorax ochreous-white,

anterior margin mixed with blackish. Abdomen grey. Legs dark fuscous, posterior pair grey-whitish. Forewings elongate, costa gently arched, apex roundpointed, hindmargin slightly sinuate, rather strongly oblique; dark grey, with scattered black scales; a broad cloudy white median streak from base to  $\frac{2}{3}$ , extending to inner margin at base, containing some scattered black scales, lower edge very irregular and marked with a small black spot on submedian fold at  $\frac{1}{3}$ , another beneath middle, and a longitudinal black mark in disc beyond middle, apex of streak truncate immediately beyond this; a broad oblique white suffusion from apex of wing, almost reaching extremity of median streak; a small white suffusion on anal angle: cilia white with two black lines, at apex and anal angle with grey spots mixed with blackish. Hindwings grey; cilia whitish-grey.

Sydney, Blackheath (3500 feet), and Bathurst (2500 feet), New South Wales; Melbourne, Victoria; Hobart, Tasmania; in November, December, and March, common.

### 32. *ACMOSARA*, Meyr.

The type is no longer in my hands, and I can add nothing to the original description of this genus; it is related to *Zelleria*, but not very closely.

#### 155. *Acm. polyxena*, Meyr.

*Acmosara polyxena*, Meyr., Proc. Linn. Soc. N. S. Wales, 1886, 1043.)

### 33. *ZELLERIA*, Stt.

Head with dense rough hairs on crown, projecting between antennæ, face smooth; ocelli present; tongue developed. Antennæ  $\frac{3}{4}$ - $\frac{4}{5}$ , in ♂ serrate, simple, basal joint with pecten. Labial palpi moderate, rather drooping, with appressed scales, terminal joint longer than second, slightly roughened, tolerably pointed. Maxillary palpi rudimentary. Posterior tibiæ smooth-scaled. Forewings sometimes with thickened costal patch between 11 and 12; 1 simple or very shortly furcate, 2 remote from 3, 4 and 5 sometimes stalked, 7 to hindmargin, 11 from before middle. Hind-

wings  $\frac{1}{5}$ -1, lanceolate, cilia  $1\frac{1}{2}$ - $2\frac{1}{2}$ ; vein 4 absent, 5 and 6 approximated towards base.

Developed apparently from a form approaching *Dascia*. The genus is represented elsewhere by a few species in Europe and one in New Zealand, but will no doubt be eventually discovered in other regions also. Some European species have veins 4 and 5 of the forewings coincident; the genus *Zelleria* has been restricted to these by Wocke, and a genus *Hofmannia* formed to receive the rest, and I formerly adopted this view, but on consideration of the close agreement of these forms in all other respects, it now seems to me unnecessary to separate them.

- |  |                             |
|--|-----------------------------|
| 1. Forewings with costa almost straight....                            | 2.                          |
| Forewings with costa moderately strongly<br>arched .....               | 3.                          |
| 2. Head ochreous, centre of crown some-<br>times whitish.....          | 156. <i>cynetica</i> .      |
| Head grey irrorated with white.....                                    | 157. <i>araeodes</i> .      |
| 3. Forewings with groundcolour grey.....                               | 4.                          |
| Forewings with groundcolour not grey..                                 | 5.                          |
| 4. Forewings with black line in cilia; head<br>mixed with fuscous..... | 158. <i>memorella</i> .     |
| Forewings without black line in cilia;<br>head wholly white.....       | 159. <i>aphrospora</i> .    |
| 5. Forewings wholly white.....   | 165. <i>sigillata</i> .     |
| Forewings not wholly white.....  | 6.                          |
| 6. Forewings with blackish dot before<br>middle.....                   | 161. <i>proterospora</i> ♂. |
| Forewings without blackish dot before<br>middle.....                   | 7.                          |
| 7. Forewings wholly pale whitish-yellow... 164. <i>citrina</i> ♂.      |                             |
| Forewings not wholly whitish-yellow...                                 | 8.                          |
| 8. Forewings sprinkled with dark grey<br>posteriorly.....              | 160. <i>callidoxa</i> .     |
| Forewings not sprinkled with dark grey<br>posteriorly.....             | 9.                          |

- |   |                             |
|---|-----------------------------|
| 9. Forewings with median white streak. ..                   | 10. .                       |
| Forewings without median white streak                       | 11.                         |
| 10. Forewings with costal area suffused with<br>orange..... | 162. <i>pyroleuca</i> .     |
| Forewings with costal area not orange...                    | 163. <i>mystarcha</i> .     |
| 11. Forewings with costal edge blackish.....                | 161. <i>proterospila</i> ♀. |
| Forewings with costal edge white.....                       | 164. <i>citrina</i> ♀.      |

156. *Zell. cynetica*, n.sp.

♂♀. 12-15 mm. Head brownish-ochreous or reddish-ochreous, face whitish-ochreous, middle of crown sometimes whitish. Palpi dark fuscous mixed with white. Antennæ pale ochreous. Thorax light brownish-ochreous or purplish-fuscous. Abdomen pale grey. Legs dark fuscous, posterior pair suffused with ochreous-whitish. Forewings very elongate, narrow, parallel-sided, long-pointed, apex acute, produced; varying from pale fuscous to reddish-ochreous, with reddish-purple reflections; an irregular dark fuscous irroration, especially posteriorly and on costal edge; inner margin sometimes narrowly whitish; a very oblique cloudy dark fuscous mark from inner margin near base, not reaching beyond submedian fold, often reduced to a spot on fold; sometimes an elongate dark fuscous spot on inner margin beyond this; sometimes several blackish dots on fold and costa; a small dark fuscous spot above anal angle: cilia pale greyish-ochreous or whitish-fuscous, round apex reddish-ochreous with a terminal black hook. Hindwings light grey, thinly scaled towards base; cilia pale ochreous-greyish.

Brisbane, Queensland; Murrurundi, Sydney, and Blackheath (3500 feet), New South Wales; Launceston, Deloraine, Georges Bay, and Hobart, Tasmania; from October to December and in March, common: a variable insect.

157. *Zell. araeodes*, n.sp.

♂. 14-15 mm. Head and thorax light grey irrorated with white. Palpi whitish, externally dark grey. Antennæ whitish.



Abdomen whitish-grey. Legs dark grey, posterior tibiæ whitish. Forewings very elongate, narrow, parallel-sided, apex round-pointed; ochreous-grey or fuscous, mixed with white, especially towards inner margin, and irrorated with darker fuscous; costal, subcostal, submedian, and subdorsal longitudinal series of blackish dots; a slender cloudy dark fuscous fascia from  $\frac{2}{5}$  of costa to  $\frac{2}{5}$  of inner margin, ill-defined above, blackish on lower half; a blackish longitudinal spot on inner margin beyond middle; a white dot on costa near apex, followed by a small blackish spot: cilia pale ochreous-grey, round apex dark fuscous somewhat mixed with whitish. Hindwings grey, thinly scaled towards base; cilia pale ochreous-grey.

Geraldton and Albany, West Australia; in September and October, two specimens.

158. *Zell. memorella*, n.sp.

♂♀. 9-13 mm. Head white, more or less mixed with fuscous. Palpi white, beneath fuscous. Antennæ whitish. Thorax white mixed with fuscous. Abdomen whitish-grey. Legs dark fuscous, middle pair partially suffused with white, posterior pair whitish. Forewings elongate, narrow, costa moderately arched, apex acute, somewhat produced, hindmargin and inner margin continuous, straight; grey, irregularly and suffusedly mixed with white, tending especially to form a broad white longitudinal suffused streak along submedian fold; some variable scattered black dots, tending to form longitudinal series; a blackish oblique spot on fold before middle, sometimes extended as an oblique mark to disc; sometimes a blackish longitudinal spot on inner margin at  $\frac{2}{3}$ : cilia pale ochreous-greyish, round apex with a sharp black median line and fuscous terminal line, below apex with a white spot on terminal half. Hindwings pale grey, thinly scaled towards base; cilia whitish-ochreous-grey.

Sydney and Mount Kosciusko (5500 feet), New South Wales; Georges Bay and Hobart, Tasmania; York and Albany, West Australia; from November to January, common.

159. *Zell. aphrospora*, n.sp.

♂♀. 11-12 mm. Head, palpi, antennæ, and thorax white. Abdomen grey-whitish. Legs white, anterior pair dark grey. Forewings elongate, narrow, costa moderately arched, apex acute, hindmargin extremely obliquely rounded; rather light greyish-ochreous, densely strewn with white throughout; an ill-defined short blackish dash on fold before middle; an indistinct blackish dot close above anal angle, and sometimes traces of another above this: cilia pale greyish-ochreous, base suffused with white round apex, with some blackish points near hindmargin above anal angle, and on a small spot at apex. Hindwings pale grey; cilia pale greyish-ochreous.

Port Lincoln, South Australia; in November, five specimens.

160. *Zell. callidoxa*, n.sp.

♂♀. 13-15 mm. Head whitish-ochreous, sides of crown white. Palpi whitish, beneath ochreous. Antennæ grey, towards base white. Thorax white, with a pale orange stripe on each side of back, patagia orange. Abdomen whitish-ochreous-grey. Legs fuscous, posterior pair whitish. Forewings elongate, narrow, costa moderately arched, apex acute, produced, hindmargin and inner margin continuous, nearly straight; bright orange, paler towards costa and inner margin; costal edge blackish; a slender white streak along basal third of costa; a white longitudinal median streak from base, gradually dilated posteriorly so as to extend along costa from about  $\frac{2}{3}$  to apex, sprinkled with blackish-grey posteriorly, including a grey dot at  $\frac{2}{3}$ : cilia whitish-ochreous, base mixed with orange, tips at apex dark grey, above apex wholly white. Hindwings pale grey; cilia whitish-ochreous, greyish-tinged.

Port Lincoln and Mount Lofty, South Australia; in November, seven specimens.

161. *Zell. proterospila*, n.sp.

♂♀. 12-16 mm. Head white, face ochreous-tinged; back of crown pale ochreous-yellowish. Palpi white, terminal joint sometimes grey externally. Antennæ pale greyish-ochreous, towards

base white. Thorax white, with a pale orange stripe on each side of back, patagia orange. Abdomen whitish-ochreous-grey. Legs whitish, anterior pair grey. Forewings elongate, narrow, costa moderately arched, apex acute, hindmargin and inner margin continuous, nearly straight; bright orange, becoming pale yellow towards costa and sometimes towards inner margin also; costal edge blackish-grey; a slender white streak along anterior half of costa; in ♂ a white longitudinal median streak from base, gradually dilated posteriorly so as to extend along costa from  $\frac{2}{3}$  to apex, sprinkled with blackish-grey posteriorly, including a round blackish dot before middle and another at  $\frac{2}{3}$ ; in ♀ a ferruginous streak of same form, without black dots: cilia pale greyish-ochreous, becoming dark grey at apex on terminal half, in ♂ above apex white sprinkled with dark grey, in ♀ becoming orange or ferruginous towards base, tips white on costa. Hindwings and cilia grey.

Geraldton, York, and Albany, West Australia; from October to December, common.

162. *Zell. pyroleuca*, n.sp.

♂. 17 mm. Head yellowish-white, face pale ochreous, sides ferruginous. Palpi whitish. Antennæ light grey, towards base white. Thorax white, with a pale orange stripe on each side of back, patagia orange except inner edge. Abdomen whitish-grey-ochreous. Legs rather dark fuscous, posterior pair whitish. Forewings elongate, rather narrow, costa moderately arched, apex acute, rather produced, hindmargin and inner margin continuous, nearly straight; pale orange, darker towards costa; costal edge very finely blackish; a slender white streak along anterior half of costa; a suffused white median longitudinal streak from base to middle, lower edge extended as a fine streak above submedian fold to above anal angle; a suffused white subdorsal streak and a narrow dorsal streak from base to near anal angle, tending to be partially confluent, indistinct posteriorly: cilia pale greyish-ochreous, basal half deep orange on costa and upper half of hindmargin, terminal half blackish at apex. Hindwings grey; cilia pale greyish-ochreous.

Bathurst (2300 feet), New South Wales; in November, one specimen.

163. *Zell. mystarcha*, n.sp.

♂♀. 14-16 mm. Head white, sides of face pale ochreous. Palpi white. Antennæ grey-whitish, towards base white. Thorax white, with a pale yellow stripe on each side of back, patagia pale yellow except inner edge. Abdomen grey-whitish. Legs whitish, anterior and middle pair infuscated. Forewings elongate, narrow, costa moderately arched, apex acute, strongly produced, hindmargin and inner margin continuous, nearly straight; white or yellowish-white; a pale yellowish indistinct suffused subcostal streak from base to costa at  $\frac{2}{3}$ ; an orange streak along submedian fold from base to anal angle, well-defined above, suffused beneath; dorsal space beneath this more or less suffused with pale yellowish: cilia pale greyish-ochreous, towards base tinged with orange, terminal half beneath apex mixed with blackish, costal cilia fuscous except on a white band above apex. Hindwings light grey; cilia pale greyish-ochreous.

Campbelltown, Tasmania; in December, nine specimens.

164. *Zell. citrina*, n.sp.

♂♀. 14-16 mm. Head white, centre of crown whitish-yellowish, forehead whitish-orange. Palpi ochreous-whitish. Antennæ grey-whitish, towards base white. Thorax yellowish-white, patagia more or less orange. Abdomen grey-whitish. Legs ochreous-whitish, anterior pair dark fuscous, middle tibiae infuscated. Forewings elongate, narrow, costa moderately arched, apex acute, strongly produced, hindmargin and inner margin continuous, nearly straight; in ♂ very pale whitish-yellow, unicolorous; in ♀ orange or ferruginous, costa narrowly white or yellowish-white from base to  $\frac{2}{3}$ , inner margin rather broadly pale orange or yellowish: cilia pale whitish-ochreous, at apex with a dark grey spot on terminal half, in ♂ basal half orange-tinged beneath apex, in ♀ basal half orange or ferruginous on costa and upper half of hindmargin. Hindwings very pale grey; cilia whitish-grey-ochreous.

Sydney and Glen Innes (3500 feet), New South Wales; in September and December, common.

165. *Zell. sigillata*, n.sp.

♂♀. 9-11 mm. Head white, forehead yellowish-tinged and sometimes mixed with grey. Palpi, antennæ, thorax, abdomen, and legs white; anterior legs infuscated. Forewings elongate, rather narrow, costa moderately arched, apex acute, produced, hindmargin sinuate, extremely oblique; white, towards apex sometimes faintly yellowish-tinged: cilia white or ochreous-white, with a black basal dot at apex. Hindwings pale grey or whitish-grey; cilia grey-whitish.

Sydney and Shoalhaven, New South Wales; in December and January, six specimens.

34. *MACARANGELA*, n.g.

Head with dense rough hairs on crown, projecting between antennæ, face smooth; ocelli present; tongue developed. Antennæ 1, in ♂ filiform, simple, basal joint elongate, rather stout, with slight pecten. Labial palpi moderate, porrected, with appressed scales, slightly rough beneath, terminal joint rather longer than second, pointed. Maxillary palpi rudimentary. Anterior tibiæ and tarsi dilated with dense rather rough scales above; posterior tibiæ more or less dilated, with dense rough or rather appressed hairs, tarsi sometimes much shorter than tibiæ. Forewings with vein 1 simple, 2 rather remote from 3, 7 to hindmargin or costa, 11 from before middle. Hindwings 1, ovate-lanceolate, cilia 1; vein 4 absent, 5 and 6 rather approximated.

Probably a development of *Nematobola*; the relationship to *Zelleria*, to which there is considerable superficial resemblance, is perhaps collateral only. The three species are closely allied and very similar.

1. Forewings with orange streak continued to  
extreme apex.....-.....

2.

Forewings with orange streak not reaching  
extreme apex.....

168. *pyracma*.

2. Upper edge of streak with dark fuscous dot  
     at  $\frac{2}{3}$ ..... 167. *uranarcha*.  
 Upper edge of streak without dark fuscous  
     dot..... 166. *leucochrysa*.

166. *Mac. leucochrysa*, n.sp.

♂. 16 mm. Head orange, face and middle of back of crown white. Palpi white. Antennæ white, ringed with fuscous. Thorax white, with an orange stripe on each side of back. Abdomen and legs white, anterior legs orange-tinged above, posterior tibiæ twice as long as femora, ochreous-tinged, hairs moderate, tarsi half as long as tibiæ. Forewings elongate, rather narrow, costa rather strongly arched, apex acutely produced into a long fine point, hindmargin sinuate, extremely oblique; vein 7 to hindmargin, 9 and 10 from a point; snow-white; a moderate bright orange straight longitudinal streak below middle from base to apex; a small suffused orange spot on base of inner margin: cilia white, beneath apex with extension of submedian orange streak, at extreme apex dark fuscous. Hindwings and cilia white.

Sydney, New South Wales; in October, one specimen beaten from *Banksia*.

167. *Mac. uranarcha*, n.sp.

♂. 18 mm. Head orange, face and middle of back of crown white. Palpi white. Antennæ white, annulated with fuscous. Thorax white, with very broad orange stripe on each side of back. Abdomen white. Legs white, anterior pair ochreous-tinged above, posterior tibiæ half as long again as femora, long-haired, tarsi almost as long as tibiæ. Forewings elongate, costa strongly arched, apex acute, produced into a long fine point, hindmargin sinuate, extremely oblique; vein 7 to costa; white; a moderate straight bright orange longitudinal streak from base along submedian fold to hindmargin above anal angle and thence along hindmargin to apex, upper edge marked with a small dark fuscous dot at  $\frac{2}{3}$ : cilia white, submedian orange streak extending through them to apex, with a few dark fuscous scales at apex. Hindwings whitish; cilia white.

Mount Lofty, South Australia; one specimen received from Mr. O. B. Lower, who took it among *Banksia*, with others. The costa of the forewings is more strongly arched than in either of the other two species, and the stripes of thorax broader; the posterior tibiæ are less developed and the tarsi much more so; it differs also from *M. leucochrysa* in the dark fuscous discal dot.

168. *Mac. pyracma*, n.sp.

♂. 16-17 mm. Head light orange, face and middle of back of crown white. Palpi white. Antennæ white, annulated with fuscous. Thorax white, with a narrow orange stripe on each side of back. Abdomen white. Legs white, anterior pair ochreous-tinged above, posterior tibiæ twice as long as femora, slightly ochreous-tinged, hairs moderate, tarsi half as long as tibiæ. Forewings elongate, rather narrow, costa moderately arched, apex acutely produced into a long fine point, hindmargin sinuate, extremely oblique; vein 7 to costa; white; a straight orange longitudinal streak along submedian fold from base to middle of hindmargin and thence along hindmargin, terminating immediately beneath apex, upper edge marked with a small black dot at  $\frac{2}{3}$  and sometimes traces of another beyond middle; a small light orange-yellow suffused spot on base of inner margin: cilia white, beneath apex somewhat fuscous-tinged, with two or three black points at apex, and a row of black points at base along termination of submedian streak. Hindwings prismatic whitish; cilia white.

York, West Australia; three specimens beaten from *Banksia*, in October. Distinguished from both the preceding by the less arched costa of forewings, the submedian streak not extending into cilia nor reaching extreme apex, and especially also by the row of black scales on base of cilia at its termination.

35. *HESTIAULA*, n.g.

Head densely rough-haired, face smooth; ocelli present; tongue absent. Antennæ  $1\frac{1}{2}$ , basal joint much dilated, concave beneath to form eyecap, with small pecten. Labial palpi rather short, subascending, second joint loosely scaled, terminal joint as long as

second, filiform, pointed. Maxillary palpi long, folded, basal half dilated and flattened. Posterior tibiae clothed with dense long hairs. Forewings with strong projecting tooth of scales on inner margin near base; vein 1 furcate, 7 and 8 stalked, 7 to costa, 11 from before middle. Hindwings  $\frac{3}{4}$ , lanceolate, cilia  $1\frac{1}{2}$ ; veins 5 and 6 stalked, 6 to hindmargin.

This curious genus, though apparently belonging to this neighbourhood, presents no close relationship to any other genus in particular, and its exact affinity must be considered doubtful. Allied forms will perhaps be discovered in the northern districts.

169. *Hest. rhodacris*, n.sp.

♀. 13 mm. Head fuscous, face and forehead white. Palpi white. Antennæ white, annulated with fuscous. Thorax fuscous. Abdomen light brownish-ochreous. Legs dark fuscous, banded with ochreous-whitish, posterior tibiae whitish-ochreous. Forewings elongate, costa moderately arched, apex roundpointed, hindmargin long, rather strongly sinuate, very oblique; brownish-ochreous, sprinkled with fuscous; a cloudy rather dark fuscous streak from middle of inner margin to middle of costa, nearly obsolete on upper half; a cloudy dark fuscous dot in disc at  $\frac{4}{5}$ ; cilia pale brownish-ochreous, on costa light crimson mixed with whitish and a few black points, round apex and on upper half of hindmargin with a thick black median line which is rather strongly sinuate inwards beneath apex, basal area before this and entire cilia on lower half of hindmargin tinged with crimson and mixed with fuscous points. Hindwings blackish-grey; cilia fuscous, becoming more ochreous towards anal angle.

Brisbane, Queensland; one specimen received from Mr. G. H. Raynor.

36. *TONZA*, Walk.

Head with hairs of crown erect, forming dense tuft between antennæ, face smooth; ocelli present; tongue developed. Antennæ somewhat over 1, in ♂ filiform, simple, basal joint moderate, concave beneath, without pecten. Labial palpi moderately long, curved, ascending, slender, with appressed scales, terminal joint



as long as second, pointed. Maxillary palpi short, porrected, filiform. Posterior tibiae smooth-scaled. Forewings with vein 1 simple, 2 and 3 short-stalked from angle of cell, 4 absent, 5 absent, 7 and 8 from a point, 7 to hindmargin, 9 absent, 10 absent, 11 from  $\frac{2}{3}$ . Hindwings 1, very elongate-ovate, cilia 1; 3 and 5 short-stalked, 4 absent, 8 closely approximated to cell.

A remarkable genus, which has undergone much modification, and is now sufficiently remote from any other known to me. Besides the following, there is a closely allied species in South Africa, and it is probable that the genus may be African in origin, and that its nearest relatives should be sought there.

170. *Tonz. purella*, Walk.

(*Tonza purella*, Walk. 1011.)

♂♀. 15-16 mm. Head white, face pale yellow. Palpi yellowish-white. Antennae white, base pale yellow. Thorax white, shoulders pale yellow. Abdomen white, apex in ♂ yellowish-tinged. Legs whitish-yellow, anterior tibiae ochreous-tinged. Forewings very elongate, parallel-sided, costa almost straight, slightly sinuate, apex rounded, hindmargin concave, oblique; snow-white, with scattered faint pale grey strigulae; costa suffused with pale yellow from middle to near apex; a faint yellowish subcostal streak from base to middle; a round black almost apical dot, and a smaller one on anal angle: cilia yellowish-white, terminal half on hindmargin dark fuscous becoming lighter towards tips, beneath anal angle wholly white. Hindwings and cilia white.

Rockhampton, Queensland; in November and May, five specimens received from Mr. G. Barnard.

37. NEMATOBOLA, n.g.

Head with dense rough hairs on crown projecting between antennae, face smooth; ocelli present; tongue developed. Antennae 1, in ♂ filiform, simple, basal joint rather dilated and concave beneath to form small eyecap, with strong pecten. Labial palpi moderate, rather drooping, slender, with appressed scales, terminal joint longer than second, pointed. Maxillary palpi rudimentary.

Posterior tibiæ rough-haired. Forewings with vein 1 furcate, 7 to costa, 7 and 8 sometimes stalked, 11 from before middle. Hindwings 1, elongate-ovate, cilia 1; vein 4 absent.

Probably endemic; it is nearly related to *Thereutis*, of which it may be regarded as a development.

- |                                      |                               |
|--------------------------------------|-------------------------------|
| 1. Forewings with dark dorsal streak | ... 171. <i>isorista</i> .    |
| Forewings without dark dorsal streak | .. 2.                         |
| 2. Forewings with dark median streak | ... 172. <i>orthotricha</i> . |
| Forewings without dark median streak | ... 173. <i>candescens</i> .  |

171. *Nem. isorista*, n.sp.

♂. 13-14 mm. Head white, face fuscous-tinged. Palpi fuscous, internally white. Antennæ dark fuscous, base white. Thorax white, with a central light fuscous stripe. Abdomen grey-whitish. Legs dark fuscous, posterior pair whitish. Forewings elongate, rather narrow, costa moderately arched, apex acute, hindmargin slightly sinuate, extremely oblique; snow-white; markings fuscous mixed with dark fuscous; a moderate streak along costa from near base to near apex, attenuated at extremities; a moderate streak along inner margin from near base to hindmargin above anal angle, extremities attenuated: cilia grey, paler towards tips, round apex suffused with white. Hindwings grey; cilia ochreous-whitish.

York, West Australia; in November, three specimens.

172. *Nem. orthotricha*, n.sp.

♂♀. 14-17 mm. Head white. Palpi fuscous, internally white. Antennæ fuscous, base white. Thorax white, patagia with a fuscous central stripe. Abdomen whitish. Legs fuscous, posterior pair whitish. Forewings elongate, rather narrow, costa moderately arched, apex acute, somewhat produced, hindmargin slightly sinuate, extremely oblique; snow-white; two fuscous longitudinal streaks, mixed with dark fuscous on discal side; first along costa from near base to near apex, attenuated towards base; second below middle from base to apex: cilia whitish-fuscous, more

whitish towards tips, with a white band above apex, and a sharp black basal line along upper half of hindmargin. Hindwings light grey; cilia ochreous-whitish.

Sydney, New South Wales; Georges Bay, Tasmania; Geraldton and Perth, West Australia; from October to January, four specimens. I have also a specimen from Bathurst, New South Wales, which differs only in not showing any trace of the black basal line in cilia; it is probably a variety only.

173. *Nem. candescens*, n.sp.

♂♀. 12-15 mm. Head and thorax white. Palpi dark fuscous, internally white. Antennæ fuscous, base white. Abdomen whitish. Legs dark fuscous, posterior pair whitish. Forewings elongate, rather narrow, costa moderately arched, apex tolerably acute, hindmargin extremely obliquely rounded; snow-white; a rather dark fuscous streak along costa from near base almost or quite to apex, attenuated towards extremities, sometimes irregular posteriorly; a slender sometimes irregular dark fuscous streak along hindmargin from apex to anal angle: cilia ochreous-whitish, round apex with basal half white, terminal half light fuscous. Hindwings light grey or whitish-grey, slightly ochreous-tinged; cilia ochreous-whitish.

Sydney, New South Wales; Quorn, South Australia; from August to October, rather common. Larva (until two-thirds grown) apodal, moniliform, segments very deeply incised, head small, retractile; glossy dark red, sides thinly speckled with pale yellow; second and third segments with an irregular yellow-white dorsal mark; head black, on crown whitish, with a pale line on each side of face; it mines a large irregular blotch beneath upper-surface of leaves of *Persoonia lanceolata* (*Proteaceae*). Afterwards it becomes sixteen-legged, tolerably cylindrical, posteriorly attenuated, with long scattered hairs; above dark blackish-purple tinged with carmine, on sides pale greenish-grey; spots dark grey; head small, pale amber-ochreous, marked with black: in this stage it feeds externally, unprotected, gnawing surface of leaf. The larva feeds in July and August: the sudden transformation in structure

and habits is highly peculiar. The pupa is long, slender, the antennal cases projecting beyond abdomen; enclosed in a dense white cocoon.

38. *HARPEDONISTIS*, n.g.

Head rough, face smooth; ocelli present; tongue developed. Antennæ  $1\frac{1}{4}$ , in ♂ filiform, simple, basal joint dilated, concave beneath, with pecten. Labial palpi moderately long, slightly curved, porrected, shortly rough-scaled beneath throughout, terminal joint as long as second, pointed. Maxillary palpi rudimentary. Posterior tibiæ rough-haired. Forewings with vein 1 furcate, 7 and 8 stalked, 7 to costa, 11 from beyond middle. Hindwings 1, elongate-ovate, cilia 1; vein 4 absent.

Closely related to *Nematobola*, of which it is doubtless a development.

174. *Harp. gonometra*, n.sp.

♂♀. 14-15 mm. Head, palpi, antennæ, and thorax light ochreous. Abdomen ochreous-whitish. Legs light ochreous sprinkled with fuscous, posterior pair ochreous-whitish. Forewings elongate, costa rather strongly arched, apex tolerably acute, hindmargin slightly rounded, very oblique; light ochreous, irregularly sprinkled with ochreous-brown; a white outwardly oblique streak from inner margin beyond middle, reaching half across wing, and a similar inwardly oblique streak from anal angle, their extremities almost meeting; first of these preceded by an ochreous-brown suffusion, and space between them wholly suffused with ochreous-brown; a suffused ochreous-brown streak along hindmargin and apical part of costa: cilia whitish-ochreous, mixed with ochreous-brown, basal half white on costa and upper half of hindmargin, marked with a deep black spot at apex. Hindwings and cilia ochreous-grey-whitish.

Warragul, Victoria; two specimens received from Mr. G. H. Raynor.

39. *THEREUTIS*, n.g.

Head with dense rough hairs on crown projecting between antennæ, face smooth; ocelli present; tongue developed. Antennæ

$1\frac{1}{4}$ - $1\frac{1}{3}$ , in ♂ serrate, shortly ciliated ( $\frac{2}{3}$ ), basal joint moderate, with strong pecten. Labial palpi moderate, rather drooping, slender, with appressed scales, terminal joint longer than second, pointed. Maxillary palpi rudimentary. Posterior tibiæ rough-haired. Forewings with vein 1 furcate, 7 and 8 sometimes stalked, 7 to costa, 11 from middle. Hindwings 1, elongate-ovate, cilia 1; cilia of inner margin in ♂ sometimes forming a long expansile pencil; vein 4 absent.

Apparently a very early form, indicating a possible origin for some of the preceding genera.

- |  |                         |
|--|-------------------------|
| 1. Forewings with white costal streak.....                               | 2.                      |
| Forewings without white costal streak.....                               | 3.                      |
| 2. White streak becoming subcostal posteriorly 177. <i>schismatica</i> . |                         |
| White streak remaining costal throughout... 178. <i>chionozyga</i> .     |                         |
| 3. Hindwings in ♂ with long inner-marginal pencil of cilia.....          | 175. <i>arcana</i> .    |
| Hindwings in ♂ without inner-marginal pencil                             | 176. <i>insidiosa</i> . |

175. *Ther. arcana*, n.sp.

♂. 14 mm. Head ferruginous-fuscous, sides of crown whitish, face grey mixed with blackish and whitish. Palpi whitish, terminal joint fuscous-tinged. Antennæ light fuscous. Thorax fuscous mixed with whitish. Abdomen grey. Legs dark fuscous, posterior pair ochreous-whitish. Forewings elongate, narrow, costa moderately arched, apex roundpointed, hindmargin very obliquely rounded; 7 and 8 stalked; fuscous, irrorated with dark fuscous; dorsal area beneath fold irrorated with whitish; a short oblique whitish mark resting on fold before middle, preceded and followed by suffused blackish spots somewhat mixed with ferruginous: cilia pale fuscous, with indications of a dark fuscous line. Hindwings with cilia of inner margin enlarged to form a long expansile whitish-ochreous pencil; dark fuscous-grey; cilia light ochreous-grey.

Albany, West Australia; in October, one specimen.

176. *Ther. insidiosa*, n.sp.

♂. 9 mm. Head white, mixed with grey. Palpi whitish, externally mixed with dark fuscous. Antennæ whitish-fuscous. Thorax and abdomen light grey. Legs dark fuscous, posterior pair whitish. Forewings elongate, narrow, costa moderately arched, apex roundpointed, hindmargin very obliquely rounded; 7 and 8 stalked; fuscous, densely and suffusedly irrorated throughout with white, with some scattered dark fuscous scales; a blackish ill-defined longitudinal mark in disc before middle, a blackish dot above fold beyond middle, and another in disc at  $\frac{3}{4}$ : cilia whitish-fuscous. Hindwings grey; cilia whitish-fuscous.

Sydney, New South Wales; in March, one specimen.

177. *Ther. schismatica*, n.sp.

♀. 12-13 mm. Head white, more or less mixed with fuscous. Palpi white, externally fuscous. Antennæ whitish-fuscous. Thorax white. Abdomen grey. Legs dark fuscous, posterior pair whitish. Forewings elongate, narrow, costa moderately arched, apex acute, hindmargin sinuate, very oblique; 7 and 8 separate; fuscous, towards inner margin sprinkled with whitish; a moderate white streak from near base along costa, leaving costa before middle and proceeding as a subcostal streak to costa again at  $\frac{1}{5}$ , extremities attenuated, beneath edged with a more or less distinct dark fuscous suffusion; a more or less distinct dark fuscous suffused line along submedian fold: cilia whitish-fuscous. Hindwings fuscous-grey; cilia whitish-fuscous.

Sydney, New South Wales; in September, two specimens. Larva 16-legged, rather stout, attenuated at posterior extremity, with scattered short blackish hairs; dull rather deep green, variably suffused with purple, especially towards middle and on sides; subspiracular line whitish, distinct; head greenish-ochreous: it feeds openly on *Styphelia viridis* (*Epacrideae*), eating away the entire substance of leaves from the edge, in August. Pupa in a firm white cocoon amongst leaves. It is no doubt possible that this larva, like that of *Nematobola candescens*, may be a miner when young.

178. *Ther. chionozyga*, n.sp.

♂♀. 11-14 mm. Head white, more or less mixed or suffused with fuscous. Palpi white, terminal joint mixed with fuscous. Antennæ whitish. Thorax white, somewhat mixed with fuscous. Abdomen whitish-grey. Legs whitish, anterior pair dark fuscous. Forewings elongate, narrow, costa moderately arched, apex acute, hindmargin sinuate, very oblique; 7 and 8 separate; ochreous-grey, dorsal half densely irrorated with white; a moderate white costal streak from near base to  $\frac{3}{4}$ , attenuated towards extremities; sometimes three small round fuscous spots indicated below fold near base, and in disc at  $\frac{1}{3}$  and  $\frac{1}{2}$ , but these are usually absent: cilia light greyish-ochreous mixed or suffused with white. Hindwings grey; cilia whitish-grey.

Bathurst (2500 feet) and Sydney, New South Wales; Georges Bay, Tasmania; Port Lincoln, South Australia; York, West Australia; from September to December, eight specimens.

## 40. AMPHITHERA, n.g.

Head with dense rough hairs on crown, face smooth; ocelli present; tongue developed. Antennæ  $1\frac{1}{2}$ , in ♂ serrate, shortly ciliated ( $\frac{1}{2}$ ), basal joint moderate, with pecten. Labial palpi moderately long, curved, porrected, slender, with appressed scales, terminal joint as long as second, pointed. Maxillary palpi rudimentary. Posterior tibiae rough-haired. Forewings with vein 1 furcate, 7 and 8 stalked, 7 to costa, 11 from middle. Hindwings  $1\frac{1}{4}$ - $1\frac{1}{3}$ , elongate, trapezoidal, cilia  $\frac{1}{3}$ - $\frac{2}{3}$ ; veins 3 and 4 from a point.

This can only be regarded as a most primitive form of the family, in wing-structure closely approaching the *Plutellidae* and early *Gelechiadae*; the proportionately broad hindwings, especially developed in the female, are quite exceptional in this family. *Thereutis* would appear to have been directly developed from it.

179. *Amph. heteromorpha*, n.sp.

♂ 9-11 mm., ♀ 13-14 mm. Head white mixed or partly suffused with fuscous, in ♀ ochreous-tinged. Palpi dark fuscous, apex whitish. Antennæ whitish, towards base fuscous. Thorax white

or ochreous-whitish, sometimes suffused with fuscous or dark fuscous on back. Abdomen in ♂ whitish, in ♀ grey. Legs dark fuscous, middle pair partly suffused with white, posterior pair whitish. Forewings elongate, rather narrow, costa moderately arched, apex roundpointed, hindmargin sinuate, oblique; brownish-ochreous, in ♂ slightly, in ♀ strongly mixed with dark fuscous; in ♂ an irregular suffused white streak along fold, marked beneath with three ill-defined blackish-fuscous spots or dashes, and apical half of wing mostly suffused with white; in ♀ a white patch occupying costal half of wing from  $\frac{2}{5}$  to apex, lower edge marked at  $\frac{3}{4}$  of disc with a semicircular indentation, beneath which is a small white spot: cilia whitish, on hindmargin mixed with dark fuscous, forming two or three cloudy lines and an apical bar. Hindwings relatively broader in ♀; in ♂ whitish, cilia whitish; in ♀ rather dark grey, cilia grey.

Sydney and Bulli, New South Wales; Georges Bay, Tasmania; from October to April, not uncommon.

#### 41. CATERISTIS, Meyr.

Head rough on crown, face smooth; ocelli present; tongue short. Antennæ almost 1, in ♂ filiform, simple, basal joint enlarged, with dense pecten of scales forming an eyecap. Labial palpi short, drooping, filiform. Maxillary palpi rudimentary. Posterior tibiae clothed with long hairs. Forewings with vein 1 simple, 3 absent, 4 absent, 6 and 7 stalked, 7 to costa, 8 absent, 9 absent, 11 from middle. Hindwings  $\frac{2}{3}$ , lanceolate, cilia 3; vein 3 absent, 4 absent, cell open between 2 and 5, 5 and 6 stalked, 6 to costa, 7 absent.

Probably a degenerate development of *Nematobola*, indicating rather clearly the origin of the other degenerate genera which follow. The single species is common to Australia and New Zealand, but little is known of it at present.

#### 180. *Cat. eustyla*, Meyr.

(*Cateristis eustyla*, Meyr., Trans. N. Zeal. Inst. 1888, 164.)

♂. 10-11 mm. Head and thorax white, face grey. Forewings lanceolate; snow-white; a slender dark fuscous streak along costa



from  $\frac{1}{4}$  to  $\frac{3}{4}$ : cilia light grey, towards base whiter, round apex wholly white or ochreous-white, with a grey dot. Hindwings and cilia light grey.

Hobart, Tasmania; one specimen in January. Also obtained from the South Island of New Zealand.

#### 42. DIPLOTHECTIS, n.g.

Head rough, face smooth; ocelli present; tongue developed. Antennæ  $\frac{5}{6}$ , in ♂ filiform, simple, basal joint moderate, with large strong pecten. Labial palpi very short, porrected, loosely scaled. Maxillary palpi obsolete. Posterior tibiae clothed with long very dense hairs. Forewings with vein 1 simple, 3 absent, 4 absent, 6 absent, 7 to costa, 8 absent, 9 absent, 11 from before middle. Hindwings  $\frac{2}{3}$ , narrow-lanceolate, cilia 4; cell open between 3 and 5, 4 absent, 5 and 6 stalked, 6 to hindmargin.

Although closely related to the neighbouring genera, it is not apparent with which it is most nearly connected. The labial palpi are peculiarly short. The neurulation seems to be as I have described, but I have only the one specimen for examination.

#### 181. *Dipl. chionochealca*, n.sp.

♂. 10 mm. Head whitish mixed with fuscous. Palpi whitish. Antennæ grey. Thorax whitish. Abdomen whitish-grey. Legs dark fuscous, posterior pair whitish. Forewings lanceolate; shining bronze; a broad snow-white costal streak from base almost to apex: cilia light grey, on costal streak white. Hindwings grey; cilia light ochreous-grey.

Sydney, New South Wales; in September, one specimen.

#### 43. BEDELLIA, Stt.

Head densely rough-haired, face smooth; ocelli present; tongue short. Antennæ 1, in ♂ filiform, simple, basal joint rather stout, with large dense pecten. Labial palpi short, porrected, slender, pointed. Maxillary palpi obsolete. Posterior tibiae clothed with long hairs. Forewings with vein 1 simple, 3 from point with 2 or absent, 4 absent, 5 absent, 6 out of 8 or absent, 7 and 8 stalked,

7 to hindmargin, 11 from middle of cell. Hindwings  $\frac{1}{2}$ , linear-lanceolate, cilia 6; cell open between 2 and 5, 3 absent, 4 absent.

One of the earlier of the degenerate types, but its exact affinity cannot be traced at present. The single Australian species occurs widely in Europe and North America, and may have been introduced here, but it is equally possible that it may be really indigenous; it occurs also in New Zealand, where there is a second species, which is apparently endemic. The naked pupa may be compared with that of *Thudaca*.

182. *Bed. somnulentella*, Z.

(*Bedellia somnulentella*, Meyr., Proc. Linn. Soc. N.S.W. 1880, 170; Trans. N. Zeal. Inst. 1888, 164.)

Also taken at Duaringa, Queensland; Bathurst (2300 feet), New South Wales; Warragul, Victoria; Port Lincoln, South Australia; Geraldton, West Australia; from August to November.

44. *ARCTOCOMA*, Meyr.

Head rough-haired, face smooth; ocelli absent; tongue developed. Antennæ almost 1, in ♂ filiform, simple, basal joint rather dilated, somewhat concave beneath, with pecten. Labial palpi very short, porrected, filiform. Maxillary palpi obsolete. Posterior tibiæ clothed with long hairs. Forewings with vein 1 simple, cell open between 2 and 7, veins 3, 4, 5, 6 absent, 7 to costa, 8 absent, 9 absent, 11 from middle. Hindwings  $\frac{1}{2}$ , lanceolate, cilia 3; cell open between 2 and 5, 3 absent, 4 absent, 6 to hindmargin.

Probably a more degenerate development of *Bedellia*.

183. *Arct. ursinella*, Meyr.

(*Arctocoma ursinella*, Meyr., Proc. Linn. Soc. N.S.W. 1880, 171.)

Also taken at Launceston, Tasmania, in January.

45. *BUCCULATRIX*, Z.

Head roughly tufted on crown, face smooth; ocelli absent; tongue short. Antennæ  $\frac{5}{6}$ , in ♂ filiform, simple, basal joint dilated and concave beneath, with dense pecten, forming an eyecap.

Labial palpi absent. Maxillary palpi absent. Posterior tibiæ clothed with long hairs. Forewings with vein 1 simple, 3 sometimes absent, 4 absent, 5 absent, 7 to costa, 8 sometimes absent, 11 from before middle. Hindwings  $\frac{1}{2}$ - $\frac{2}{3}$ , narrow-lanceolate, cilia 3-5; cell open between 2 and 5, 3 absent, 4 absent.

Probably a development of the *Nematobola* group, but no immediate connection can be made out. The genus is of some extent in the Northern hemisphere, and from its obscurity may have been overlooked elsewhere. The peculiar larval habits may be compared with those of *Nematobola*.

- |  |                           |
|--|---------------------------|
| 1. Forewings grey.....                         | 2.                        |
| Forewings ochreous.....                        | 3.                        |
| 2. Forewings suffusedly streaked with white... | 184. <i>xenaula</i> .     |
| Forewings not noticeably mixed with white      | 185. <i>ptochastis</i> .  |
| 3. Antennæ ringed with white.....              | 4.                        |
| Antennæ not ringed with white.....             | 188. <i>asphyctella</i> . |
| 4. Forewings with pale costal patches.....     | 187. <i>lassella</i> .    |
| Forewings without pale costal patches.....     | 186. <i>eucalypti</i> .   |

184. *Bucc. xenaula*, n.sp.

♂♀. 8-9 mm. Head dark fuscous, sides mixed with whitish, forehead white, face white sprinkled with fuscous. Antennæ grey, ringed with darker, basal joint white. Thorax dark fuscous, sprinkled with white. Abdomen prismatic grey, beneath white. Legs dark fuscous, apex of joints and hairs of posterior tibiæ whitish, middle tibiæ suffusedly banded with whitish. Forewings elongate-lanceolate; greyish-fuscous, irregularly mixed with white, forming suffused streaks on margins of dark markings, and sprinkled with dark fuscous; markings formed by a cloudy blackish irroration; a streak along submedian fold from base to near middle; a small spot on costa near base; two oblique streaks from costâ, not reaching half across wing, first before, second beyond middle; an oblique streak from inner margin before middle to submedian streak, sometimes nearly obsolete; an irregular patch on inner margin at  $\frac{2}{3}$ , extending to fold; a

longitudinal mark before hindmargin in middle: cilia fuscous-whitish, round apex suffused with white and mixed with black points. Hindwings rather dark grey; cilia fuscous-grey.

Adelaide, South Australia; in October, four specimens bred from elongate firm white longitudinally ribbed cocoons found on the bark of *Sterculia* (*Sterculiaceae*) in the Botanical Gardens.

185. *Bucc. ptochastis*, n.sp.

♂♀. 8 mm. Head dark fuscous, sides mixed with whitish, forehead white, face fuscous-white. Antennæ grey, ringed with darker, basal joint white. Thorax grey. Abdomen prismatic grey-whitish, beneath white. Legs dark fuscous, apex of joints and hairs of posterior tibiæ whitish. Forewings elongate-lanceolate; grey; markings very ill-defined, formed by black irroration; an interrupted streak along submedian fold from base to near anal angle; two oblique marks from costa, first before, second beyond middle; a small spot on inner margin at  $\frac{3}{4}$ ; a longitudinal mark before hindmargin in middle: cilia whitish-grey, round apex sprinkled with black points. Hindwings grey; cilia pale grey.

Sydney, New South Wales; York, West Australia; in October, two specimens. It has considerable similarity with the preceding species, but is much more uniform in appearance, owing to the absence of the white suffused streaks and the partial obliteration of the black markings.

186. *Bucc. eucalypti*, Meyr.

(*Bucculatrix eucalypti*, Meyr., Proc. Linn. Soc. N.S.W. 1880, 179.)

187. *Bucc. lassella*, Meyr.

(*Bucculatrix lasella*, Meyr., Proc. Linn. Soc. N.S.W. 1880, 180.)

188. *Bucc. asphyctella*, Meyr.

(*Bucculatrix asphyctella*, Meyr., Proc. Linn. Soc. N.S.W. 1880, 181.)

Also taken at Deloraine, Tasmania, in November.

## 46. STEGOMMATA, Meyr.

Head roughly tufted on crown, face smooth; ocelli absent; tongue developed. Antennæ 1 or over 1, in ♂ filiform, simple, basal joint dilated and concave beneath, with strong dense pecten, forming an eyecap. Labial palpi moderate, rather drooping, slender, filiform, terminal joint twice as long as second. Maxillary palpi obsolete. Posterior tibiæ shortly rough-haired. Forewings with vein 1 furcate, 4 absent, 5 absent, 7 to costa, 8 absent, 9 absent, 11 from middle. Hindwings  $\frac{1}{2}$ , linear-lanceolate, cilia 6; cell open between 2 and 5, 3 absent, 4 absent, 6 to hindmargin.

Probably allied to *Bucculatrix*, but collaterally only, both being derivable from some one earlier form.

1. Forewings with short black streaks in disc 189. *leptomitella*.

Forewings without black streaks in disc.... 2.

2. Forewings with dorsal half suffused with

pale yellow..... 191. *sulfuratella*.

Forewings with dorsal half not pale yellow 190. *hesperias*.

189. *Steg. leptomitella*, Meyr.

(*Stegommata leptomitella*, Meyr., Proc. Linn. Soc. N.S.W. 1880. 172.)

Also taken at Melbourne, Victoria, in October.

190. *Steg. hesperias*, n.sp.

♂♀. 10-11 mm. Head white, crown slightly mixed with dark fuscous. Palpi white. Antennæ white, ringed with fuscous, Thorax white. Abdomen whitish. Legs white, tarsi spotted with dark fuscous. Forewings very elongate, narrow, acutely pointed, apex produced; snow-white; four pale brownish-ochreous oblique streaks from posterior half of costa, reaching about half across wing, fourth little oblique; a series of cloudy indistinct pale brownish-ochreous spots along inner and hind margin, not reaching half across wing; a round black apical dot: cilia whitish, with two fine outwardly oblique blackish dashes above apex, two grey ones below apex, and a grey apical hook. Hindwings grey; cilia grey-whitish.

Albany, West Australia; in September and October, six specimens.

191. *Steg. sulfuratella*, Meyr.

(*Stegommata sulfuratella*, Meyr., Proc. Linn. Soc. N.S.W. 1880, 172.)

Also taken at Glen Innes (3500 feet), New South Wales; Launceston, Deloraine, Campbelltown, and Georges Bay, Tasmania; Mount Lofty, South Australia: in November and December. Larval and pupal habits recorded in Proc. Linn. Soc. N.S.W. 1882, 200.

47. CROBYLOPHORA, Meyr.

Head roughly tufted on crown, face smooth; ocelli absent; tongue short. Antennæ  $\frac{4}{5}$ , in ♂ filiform, simple, basal joint broadly dilated and concave beneath, with dense pecten, forming an eyecap. Labial palpi short, drooping, filiform. Maxillary palpi obsolete. Posterior tibiae clothed with long hairs. Forewings with vein 1 simple, 4 absent, 5 absent, 7 to costa, 8 absent, 9 absent, 10 absent, 11 from middle. Hindwings under  $\frac{1}{2}$ , very narrowly lanceolate, cilia 4-6; cell open between 2 and 5, 3 absent, 4 absent.

A development of *Stegommata*.

Forewings with yellowish median streak from

base..... 192. *chrysidiella*.

Forewings without yellowish median streak from

base..... 193. *daricella*.

192. *Crob. chrysidiella*, Meyr.

(*Crobylophora chrysidiella*, Meyr., Proc. Linn. Soc. N.S.W. 1880, 178.)

Also taken in June and September.

193. *Crob. daricella*, Meyr.

(*Crobylophora daricella*, Meyr., Proc. Linn. Soc. N.S.W. 1880, 178.)

Also taken at Duaringa, Queensland, by Mr. G. Barnard, in August and October.

## 48. OPOSTEGA, Z.

Head rough-haired, back of crown smooth; ocelli absent; tongue short or absent. Antennæ  $\frac{1}{5}$ , in ♂ filiform, simple, basal joint very greatly enlarged, dilated and concave beneath to form large eyecap, without pecten. Labial palpi short, drooping, filiform. Maxillary palpi long, folded, filiform. Abdomen more or less flattened. Posterior tibiae and first joint of tarsi with long stiff bristle-like scales, inner middle spur extremely long. Forewings with vein 1 simple, cell open between 2 and 11, veins 3-10 absent; lower surface with large basal denuded patch beneath costa. Hindwings  $\frac{1}{3}$ - $\frac{1}{2}$ , narrowly lanceolate, beneath with median pecten of stiff scales towards base, cilia 3-5; cell open between 2 and 5, 3 absent, 4 absent.

This is a highly peculiar and very isolated genus, at present known only by a few species from the Northern hemisphere besides the Australian. Although it is convenient to place it at the end of the family, it probably has no near relationship to the genera immediately preceding. The presence of the antennal eyecap, and the degraded neuration have led to its previous association with them, but these characters are illusory; in them the eyecap is formed in large part by the pecten, whilst in *Opostega*, though the eyecap is much larger, it is wholly constituted by the basal joint itself, which is enormously enlarged; and the degradation of the neuration much exceeds that which is found in them. On the other hand, the rough face and long folded maxillary palpi point distinctly to a connection with the groups of *Tinea* or *Erechthias*, especially perhaps the latter; and it is most probable that *Opostega* is a degenerate and very ancient development of that group, the connecting links being perhaps wholly extinct. The broad depressed abdomen, which is a marked character of *Opostega*, is found in *Eurytyla*, one of that group. The structure of the posterior legs and the special structures of the wings appear to be peculiar to *Opostega*, and nothing approaching them occurs in any other genera of the family.

- |  |                         |
|--|-------------------------|
| 1. Forewings with dark markings from inner margin.....                 | 2.                      |
| Forewings without dark markings from inner margin.....                 | 6.                      |
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| Hindwings not white.....   | 3.                      |
| 3. Forewings with anterior fascia formed by two triangular spots. .... | 200. <i>xenodoxa</i> .  |
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| 6. Forewings with grey subbasal streak in hind-marginal cilia.....     | 194. <i>basilissa</i> . |
| Forewings without grey subbasal streak in hindmarginal cilia.....      | 195. <i>orestias</i> .  |

194. *Op. basilissa*, n.sp.

♀. 11-15 mm. Head, palpi, antennæ, thorax, and abdomen white. Legs white, anterior pair and all tarsi more or less infuscated. Forewings elongate-lanceolate, apex produced; snow-white; a light yellow-ochreous streak along upper half of hind-margin to apex: cilia white, with two fine suberect black bars above apex, a small black subbasal spot and blackish hook at apex, and a subbasal grey streak along hindmargin, interrupted in middle. Hindwings light grey; cilia white, sometimes ochreous-tinged.

Deloraine, Tasmania; Perth, West Australia; in October and November, two specimens. The larger of these is quite gigantic for this genus.

195. *Op. orestias*, Meyr.

(*Opostega orestias*, Meyr., Proc. Linn. Soc. N.S.W. 1880, 175.)



196. *Op. stiriella*, Meyr.

(*Opostega stiriella*, Meyr., Proc. Linn. Soc. N.S.W. 1880, 175.)

197. *Op. gephyraea*, Meyr.

(*Opostega gephyraea*, Meyr., Proc. Linn. Soc. N.S.W. 1880, 176.)

Also taken in September and April.

198. *Op. chalinias*, n.sp.

♀. 10 mm. Head and palpi white, back of crown ochreous. Antennæ pale greyish, basal joint white. Thorax ochreous-whitish. Abdomen grey. Legs whitish, anterior pair dark fuscous. Forewings elongate-lanceolate, apex produced; ochreous-white; two narrow acutely angulated golden-fuscous fasciæ, first before middle, very ill-defined, second beyond middle, somewhat interrupted in disc; apex suffused with light golden fuscous: cilia whitish-fuscous, round apex suffused with white on basal half, with a thick dark brown basal line along costa and upper half of hindmargin, a small black subbasal spot at apex connected with a fine suberect black bar above apex, a cloudy suberect fuscous bar beyond this, and a fuscous apical bar. Hindwings dark fuscous; cilia fuscous.

Georges Bay, Tasmania; in January, one specimen.

199. *Op. diorthota*, n.sp.

♂. 12 mm. Head white. Palpi white, externally dark fuscous. Antennæ fuscous-whitish, basal joint white. Thorax light fuscous, mixed with whitish on back. Abdomen grey-whitish. Legs whitish, anterior pair fuscous. Forewings elongate-lanceolate, apex somewhat produced; white; two narrow straight fuscous fasciæ, sprinkled with dark fuscous, first from before middle of costa to middle of inner margin, second from  $\frac{1}{5}$  of costa to anal angle: cilia white, beneath apex and on anal angle suffused with light fuscous and sprinkled with dark fuscous, with a light fuscous spot opposite costal extremity of second fascia. Hindwings dark grey; cilia whitish-fuscous; costa fringed with whitish bristles on basal half.

Albany, West Australia; in October, one specimen.



200. *Op. xenodoxa*, n.sp.

♀. 6 mm. Head white. Palpi white, externally dark fuscous. Antennæ light fuscous, basal joint white. Thorax white. Abdomen light grey. Legs dark fuscous, posterior pair whitish. Forewings elongate-lanceolate, apex produced; snow-white; markings rather dark greyish-fuscous, finely edged with black; a short dash along costa near base; a triangular spot on costa before middle, and another on inner margin before middle, their apices touching; an apical patch, suffused with ochreous in disc, its anterior edge running from  $\frac{2}{3}$  of costa to anal angle, rather strongly emarginate below middle; a small black apical dot: cilia whitish-grey, round apex and on costa greyer, sprinkled with minute white points in rows, with a small black mark at base of costal cilia at  $\frac{5}{6}$ . Hindwings pale grey; cilia whitish-grey.

Glen Innes (3500 feet), New South Wales; in December, one specimen.

## APPENDIX.

The following species described by Walker as referable to genera of this family were erroneously so assigned: they are quoted here for the sake of completion.

201. *Tinea anticella*, Walk. 483. A synonym of *Achroea grisella*, Hb. (*Galleriadae*), I believe.

202. *Incurvaria basiplaga*, ib. 490. Belongs to *Peltophora* (*Oecophoridae*).

203. *I. proximella*, ib. 490. Also a *Peltophora*.

204. *I. conjunctella*, ib. 491. Belongs to the *Plutellidae*.

205. *I. abditella*, ib. 491. Belongs to *Aeolocoma* (*Glyphipterygidae*).

206. *Tinea comptella*, ib. 1007. Belongs to *Loxostoma* (*Elachistidae*).

207. *T. tortricitella*, ib. Suppl. 1812. Unidentified; perhaps belongs to *Tortricidae*.

208. *T. oecophorella*, ib. 1813. A synonym of *Comarchis aspec-tatella*, Walk. (*Arctiadae*).

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